

Many Uncertainties Surround Proposed Farm Legislation

**Soil Bank Seen As
Sure Feature; Fight
Over Supports Likely**

By JOHN CIPPERLY
Croplife Washington Correspondent

WASHINGTON—The farm bill reported by the Senate Agriculture Committee, S. 3183, containing some sharply contradictory provisions, does little to clarify the outlook for the plant food and pesticide industries. The aggravation of delay in reaching final legislation is seen as slowing down sales and production activities of the plant food and pesticide industries. Many farmers may be unwilling to make commitments for supplies until they see clearly what the federal government will do not only with the soil bank but also with the price support level.

While this is an aggravation of importance, there are some deep notes of over-all optimism within the distributive and dealer trade. These grass roots sources say that the farm communities now see the great cost per unit reducing factors in adequate use of plant nutrients.

Optimists now see farm legislation by mid-March. A distraction, however, is likely to be plans of the House Agriculture Committee to hold hearings on the Senate bill which will further delay matters.

The bill's chief feature is the soil bank proposal with its two-phased plan of an acreage reserve and a conservation reserve.

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Kansas Plant Has Formal Opening

OLATHE, KANSAS—The formal opening of the Deep Root fertilizer plant was held recently here. The event marked start of production of commercial fertilizer at the plant.

Reports on Grassland Farming Heard at Annual Meeting of Southern Agricultural Workers

ATLANTA—Agronomists from 13 southern states were an important segment of the Association of Southern Agricultural Workers conducting a close study of a grassland farming program at the annual meeting here Feb. 6-8.

In one of the highlight speeches on the joint program, Howard Doane, Agricultural Service, St. Louis, Mo., told the group that grassland farming could be profitable with livestock if a good management program was practiced.

Mr. Doane said the weakest link in the non-gaining period is the part generally referred to as "wintering."

Capacity for Anhydrous Output Estimated at 4.07 Million Tons

WASHINGTON—With a number of new nitrogen-producing plants now on stream after being completed late in 1955, the current capacity for production of anhydrous ammonia is estimated at 4,072,000 tons NH₃, according to the industry report issued by the U.S. Department of Commerce, Business and Defense Services Administration.

The statistics, appearing in the Department's publication "Chemical and

Rubber," state that anticipated completions of three new plants during the first half of 1956, plus the going on stream of an additional three or four in the closing months of the year, may mean an expanded capacity of from 400,000 to 500,000 tons. Completions during this year will have relatively little effect on output during the first half of the year, however, the report says.

Should the industry produce to full

capacity during the first half of 1956, production during this six-month period of 1956 would exceed output during the corresponding period of 1955, by some 20%.

The demand for ammonia and its derivatives will not warrant such a high rate of production, the government report says. It states that despite the increase in capacity during the last half of 1955, output in that period was 5% to 10% below that in the first half of the year.

"It is expected that output will recover during the first half of 1956 and probably will run above the level of the first half of 1955," the report says. "The extent of the increase is difficult to predict because of the farm income situation and its possible effect on the demand for fertilizers."

"The industry is facing more and more difficulty in keeping material moving all year 'round, and may be subjected to excessive demands during the spring season. Industrial outlets (that is, uses other than fertilizer) for ammonia and derivatives in 1956 should be as good as or better than in the previous year, but probably will not account for more than 30% of total consumption."

"The solid nitrogenous materials, such as ammonium nitrate and ammonium sulfate, have exhibited essentially the same trends in production as has ammonia. Output in

(Continued on page 21)

Production of Pesticides in 1955 Totals 450 Million Pounds of Toxic Materials

WASHINGTON—The Department of Commerce report on pesticides states that more than 450 million pounds of toxic materials (not including formulations) were produced in 1955. Although specific figures were not given on many pesticidal materials, it was indicated that the greatest increase in output occurred in the "miscellaneous organic pesticides" category which totaled some 110 million pounds in 1955 as compared to about 65 million in the previous year. This marked an increase of 70%.

Materials included in this calculation, the report says, included production figures on aldrin, Aramite, Captan, chlordane, dieldrin, endrin,

heptachlor, Malathion, Methoxychlor, Strobane and toxaphene, plus estimated output of the dithiocarbamate fungicides.

Despite high production of last year, stocks of pesticides on Sept. 30, 1955, were 29% lower than those on the corresponding date in 1953 and some 9% less than those on Sept. 30, 1954. (Croplife, Dec. 12, 1955, page 1).

The "miscellaneous organic pesticides" mentioned above, are estimated to comprise nearly 25% of total output of pesticidal materials. "Judging from incomplete 1955 data," the report says, "production of DDT approximated 120 million pounds for the year, an all-time high which was 43% above 1954 output."

"Available statistics on output of other pesticides indicate only slight variations from 1954 levels, with the exception of copper sulfate which was up some 18%."

"Dollar value of pesticide exports in 1955 appears to have reached a level about 25% above that in 1954 and 63% higher than the 1953 value. Shipments abroad of 'miscellaneous insecticides and related materials' were over 30% above those in 1954, indicating an increasing demand abroad for the newer insecticides and fungicides in this category. Many of these commodities are not produced outside the United States, and the upward trend in foreign demand, as well as increased domestic use, probably will continue."

Ezra Benson Asks Suspension of Truck Rate Hike Request

WASHINGTON—Ezra Taft Benson, secretary of agriculture, has petitioned the Interstate Commerce Commission to suspend tariff provisions which have been filed by motor carriers for a 7% increase in truck rates and charges, with respect to agricultural commodities, farm supplies, fish and fishery products.

In his petition to the commission, Mr. Benson re-stated his position of Feb. 2 in opposition to a similar rise in freight rates requested by the railroads. (Croplife, Feb. 13, page 1).

Swift & Co. to Construct New Plant in Florida

WINTER HAVEN, FLA.—Swift & Co. will begin construction soon on a new plant food factory at Pompano Beach, Fla. Announcement was made by J. W. Whitaker, manager of the Swift plant food factory at Winter Haven, Fla.

Contract for the general work on the job was let to S. S. Jacobs, Jacksonville, Fla. "Work will begin as soon as necessary building permits can be cleared, and operations should begin this fall," Mr. Whitaker said.

Currently Swift & Co. serves the needs of its customers in south Florida from its Winter Haven plant. Mr. Whitaker said the primary purpose for the new plant is to render even better service to farm producers and home gardeners in south Florida. A full line of Swift & Co. plant foods including the Vigoro products, will be produced at Pompano Beach. The main plant building will be of concrete block and steel construction. It will be adjoined by a bag warehouse and loading dock and an office section. A modern conveyor system will be part of the equipment.

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Safer, More Scientific Crop Protection by Use of Aircraft Keynotes California Meeting

LONG BEACH, CAL. — Safer and more scientific methods of protecting California's agricultural crops and forest lands through wider use of airplanes emerged as the keynote of the recent California Agricultural Aircraft Assn. convention in Long Beach.

Application of rocket powered take-off apparatus for agricultural planes, control of the spotted alfalfa aphid which has attacked California crops, use of new and more effective spray chemicals and application of new safety controls for agricultural aircraft were among the subjects discussed.

Approximately 400 agricultural aircraft operators, pilots, farm ex-

perts and members of allied industries attended the three day meeting. Among the top speakers were William L. Gore, Aero-jet General Corp. of Sacramento; Allen B. Lemmon, chief of California Bureau of Chemistry from Sacramento; Norman B. Akesson and Wesley Yates of the University of California at Davis; Dr. J. C. Chamberlin of the U.S. Department of Agriculture in Forest Grove, Ore.; Kenneth Messenger, USDA, Beltsville, Md.; Gale F. Hanson, Civil Aeronautics Administration agricultural operations specialist, Washington, D.C.; Kenneth Aldrich, CAA, Washington, D.C., and California Senator Stephen P. Teale (D-Calaveras Co.) chairman of the

Senate Interim Committee on Aviation.

Led by Henry Moore of Tulare who was reelected president, the farm fliers and representatives from the Civil Aeronautics Administration stressed the need for more specific pilot-applicator training facilities for the industry. They hope to bring about establishment of agricultural aircraft courses in land grant colleges of the state. It was pointed out that Texas A&M University already has inaugurated such a course.

"There is a real shortage of trained and competent agricultural pilots who have the necessary knowledge regarding handling of toxic chemicals, entomology and a basic understanding of agriculture itself," said Charles Branstetter of Sacramento, past president and director of the association.

William Gore of Aero-jet told the agricultural aircraft operators that within 18 months his company will

have developed a JATO (jet assisted take off) apparatus that can be applied to the crop dusting planes. Such a device, say the agricultural pilots, would insure a margin of safety for their industry that now is lacking.

Daisy Walsh of Woodland was reelected secretary-treasurer of the association and James B. French of Bakersfield was re-elected vice president. The directors retained Mr. Wanda Branstetter as executive secretary.

It was pointed out that a total of 6,000,000 acres of cropland and forest in California were treated by agricultural aircraft in 1955, a gain of 600,000 acres over 1954 in spite of the general cutback in cultivated land last year.

Texas Agricultural Aviation Conference Scheduled Feb. 26-28

COLLEGE STATION, TEXAS—Aerial applicators from Texas and adjoining states will be in College Station Feb. 26-28 for the fifth annual Texas Agricultural Aviation Conference and Short Course on Pest Control.

Subjects to be discussed on the program range from "Problems of Insect Control with Airplanes" through "The Effect of Herbicide Droplet Size and Other Variables on Mesquite Control" and "A Rice Farmer's Experiences with Aerial Application" to "Sales Methods and Customer Relations."

This annual conference and short course is sponsored by the Texas A&M College System, the Texas Aeronautics Commission, the Texas Flying Farmers and Ranchers Assn. and the Texas Aerial Applicators Assn.

It is designed to bring aerial applicators and other interested persons together during what is usually a slack period to hear specialists describe developments in both the flying and the pest control phases, and to facilitate discussions among themselves of their problems and solutions.

Prof. Fred E. Weick, head of the Aircraft Research Center of the Texas Engineering Experiment Station, serves as chairman for the course.

All discussions and meetings will be held in the Memorial Student Center on the main campus. A demonstration of agricultural airplanes will be held on the College Plantation in the Brazos River bottom the afternoon of Feb. 28. February 26 will be devoted to a meeting of the Texas Aerial Applicators Assn.

William J. Hutchinson Named Director of American Potash

LOS ANGELES—William J. Hutchinson has been named a director of American Potash & Chemical Corp., it has been announced by Peter Colefax, president. He will fill the vacancy created by the death of William J. Murphy last December.

Mr. Hutchinson has been a director of the International Nickel Company of Canada, Ltd., since 1924. He is also a member of the New York local board of the Atlas Assurance Co. of London, and a member of the New York board of directors of Prudential Insurance Co., Great Britain.

Born in Montclair, N.J., Mr. Hutchinson attended Lehigh University, graduating in 1906.

BANKERS SCHOOL

MANHATTAN, KANSAS—A 3-day agricultural school for bankers will be held February 23-25 on the Kansas State College campus in Manhattan. This event is a biennial one under auspices of the college and the agricultural committee of the Kansas Bankers' Assn.

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Sudan Asks Bids For Spraying Part Of Cotton Crop

WASHINGTON—The Sudan Gezira Board, Barakat, Sudan, has invited tenders for the spraying of part of its cotton crop with liquid insecticide by aircraft or land machines during October, 1956. Tenders must be in the hands of the board by Feb. 28.

The U.S. Department of Commerce states that the total area to be treated is not expected to exceed 100,000 feddans (one feddan is equal to 1.038 acres) and contractors are required to quote separate rates in Egyptian pounds per feddan for areas of 20,000, 30,000, 50,000 and 100,000 feddans respectively. (A pound is equivalent to \$2.80.)

Tenders involving aircraft spraying should be for four application rates, namely two imperial gallons, one gallon, 0.50 gallon and 0.25 gallon per feddan. Brief details of the proposed

method of application must accompany each tender. Flying will be restricted to six hours a day.

Tenders for land machine spraying must be for low volume spraying suitable for the size of the machine and type of nozzle, brief details of which should accompany the tender. The board will supply the insecticides and will stipulate the dosage.

Spraying has to be completed within a maximum period of five weeks beginning about Oct. 1.

India Gets \$4 Million Pesticide Authorization

WASHINGTON — International Cooperation Administration has announced a \$4 million authorization to India for agricultural pesticides. Terminal delivery date is Feb. 29 and source is the U.S. and possessions. Procurement will be carried out through the Emergency Procurement Service, General Service Administration.

Tree Protection Short Course Is Scheduled

ST. PAUL, MINN.—A two-day short course on tree protection is scheduled to be held at the University of Minnesota March 6 and 7. The program will include discussions of insects and diseases that threaten various trees in the state, and a number of papers covering factors affecting tree health.

Among the papers scheduled for delivery on Wednesday afternoon, March 7, are "Insecticides for Tree Insect Control," by L. K. Cutkomp, University of Minnesota; and "Fungicides and Chemotherapy for Tree Protection," by D. W. French, also of the University.

R. R. Whitten, chief of the division of forest insect research, Central States Forest Experiment Station, U.S. Forest Service, Columbus, Ohio, will talk on Dutch elm disease and phloem necrosis during the afternoon session of March 7.



John M. Marsh

John M. Marsh Heads Great Western Ag Chem Division

PORTLAND, ORE. — John M. Marsh, Forest Grove, Ore., businessman and civic leader, has been named manager of the agricultural chemical division of Great Western Chemical Co., sales agents and distributors in the Pacific Northwest of agricultural and industrial chemicals. It is announced by Richard H. Wilson, general manager.

For the past 10 years Mr. Marsh has been manager of the grain and fertilizer department of E. F. Burlingham & Sons, Forest Grove. Previously, he was graduated from Northwestern State College and later served four years in the Marine Corps.

He is past president of the Forest Grove Chamber of Commerce and is currently chairman of the agricultural committee. He is a member of the Forest Grove planning commission and is Washington county district governor for the Oregon Feed & Seed Dealers' Assn. For the past two years he has been judge of the "Grass Man of the Year" in Washington County.

In his new position with Great Western Chemical Co., which recently announced mergers with distributing firms in both Portland and Seattle (CROPLIFE, Feb. 6, Page 4), Mr. Marsh will supervise the company's operations involving agricultural chemicals in all of Oregon and western Washington. His headquarters will be in Portland.

John C. Anderson Named to Board of California Association

SAN MARINO, CAL.—John C. Anderson of Bakersfield has been elected to the board of directors of the California Fertilizer Assn., it has been announced. Mr. Anderson is president of The Agriform Co., Inc., mixers and distributors of liquid fertilizers for agricultural and home garden use.

The association's board elected Mr. Anderson to the term which will expire in November, 1958, subject to approval of the membership at its annual meeting to be held in Coronado on Nov. 12, 1956. This is one of three new seats on the board which were created by membership action last November, intended to provide better representation of liquid fertilizer suppliers and full geographical coverage of the state as well, the CFA says.

NURSERYMEN TO MEET

WALTHAM, MASS. — The Waltham Field Station of the University of Massachusetts will be host to managers, superintendents, propagators, foremen and others at a Short Course for Nurserymen Feb. 23-24, Dr. John R. Havis, station head, has announced.

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Moisture Adds to Work Schedule of Mid-South Farmers

MEMPHIS—Three weeks of rain saturated the soil and ended a winter drouth, but has added work to the schedule of Mid-South farmers who had broken their ground early.

Extension officials in Arkansas, Missouri, Mississippi and Tennessee said in their weekly crop reports that rains have packed the soil, making it necessary for the farmers to re-break their land before spring planting.

In Arkansas the Agricultural Extension Service said the state had had a good enough soaking for a while and that farmers are anxious to get into their fields to prepare land for spring plantings.

The extension service said it would take about a week of clear weather in many lowland areas, however, before farmers could get back into fields with plows and tractors.

Also, a lot of landbreaking that was done during this winter's earlier "drouth" will have to be redone because of heavy rains packing the earth, a spokesman pointed out.

Winter cover crops continued to make recovery under recent plentiful rains or moisture, and livestock have come through this winter in generally good shape, it was reported.

Rainy weather and wet fields continued to hold farming activity in Mississippi to a minimum, the Mississippi Agricultural Extension Service said. Winter grazing crops responded to ample moisture and higher temperatures throughout the state and made rapid growth. However, most of the fields were too wet to graze, said W. R. Thompson, extension pasture specialist.

Chesley Hines, extension horticulturist, said that truck crop growers are ready to go ahead with planting of turnips and completion of cabbage settings as soon as weather and soil conditions permit.

Farmers in Southeast Missouri were working on farm machinery last week and "biding their time" as rains kept them from field work for the third straight week, W. F. James, Pemiscot County agent, said.

No field work is being attempted in the delta area, which makes up most of Southeast Missouri farm land.

In West Tennessee, T. W. Hilsman, Madison County farm agent, urged farmers to study means of supplementing regular farm income during present slack periods.

Judd Brooks, district farm agent, said area farmers will be crowded for special tasks when the weather permits field production, but he added, soil tests should not be overlooked by any farmer. Mr. Brooks said soil tests will be conducted free by the extension service and they will save "most farmers a great deal of money."

Newell Dickson Joins Pacific Supply

PORTLAND, ORE.—Newell Dickson has been appointed agronomist for South Idaho, it is announced by the Pacific Supply Cooperative chemical division here.

Mr. Dickson graduated from Brigham Young University where he majored in agronomy and range management. While at BYU he worked on the college experimental plots as well as laboratory instructor.

He was employed by the soils department at Western Washington experiment station in 1943. In 1944 he was advanced to grazing specialist. He conducted a number of field plots in fertilizer and field crops and later was employed by the Washington State highway department to work on pavement control with grasses and legumes.

Rutgers Fellowship Established for Study Of Asparagus Production

NEW BRUNSWICK, N.J.—A three-year fellowship has been established at the Agricultural Experiment Station here for the study of asparagus production problems, Dr. J. Howard Ellison, associate research specialist in vegetable crops, announced.

Cooperative G.L.F. Exchange, Inc., Ithaca, N.Y., has joined asparagus processors, brokers, auctions and growers in supporting the work by contributing to the \$3,000 fellowship fund, under sponsorship of the N.J. Cannery Assn.

G.L.F. is participating because asparagus is a crop of concern to many of its members in New Jersey, according to a company spokesman.

The project covers minor element nutrition, irrigation, cultivation, quality, replanting, strain testing and yield prediction studies. Experiment Station departments cooperating in this work include vegetable crops,

soils, farm crops, food technology, agricultural economics, entomology and plant pathology.

Arthur Poivan, a graduate student in vegetable crops, has been assigned to the fellowship.

Rust Mites Infesting Citrus in Texas Area

WELASCO, TEXAS—Rust mites are infesting citrus orchards in damaging numbers, according to James A. Deer, associate Hidalgo County agent for entomology. A survey shows that the rust mite infestation is considerably heavier than at any time during the last two years. The recent rains and cold weather will help reduce spider mite populations, Mr. Deer said, but will have little effect on rust mites.

He has asked all orchard owners to examine their trees, and if there is excessive leaf drop, leaf samples should be brought to the Valley Experiment Station at Welasco to be checked.

Articles Filed For New Tank Car Transportation Firm

WICHITA—Articles of incorporation for a new tank car transportation firm, with an estimated \$1½ million in equipment, were filed Feb. 8 in the office of the secretary of state, Topeka, Kansas.

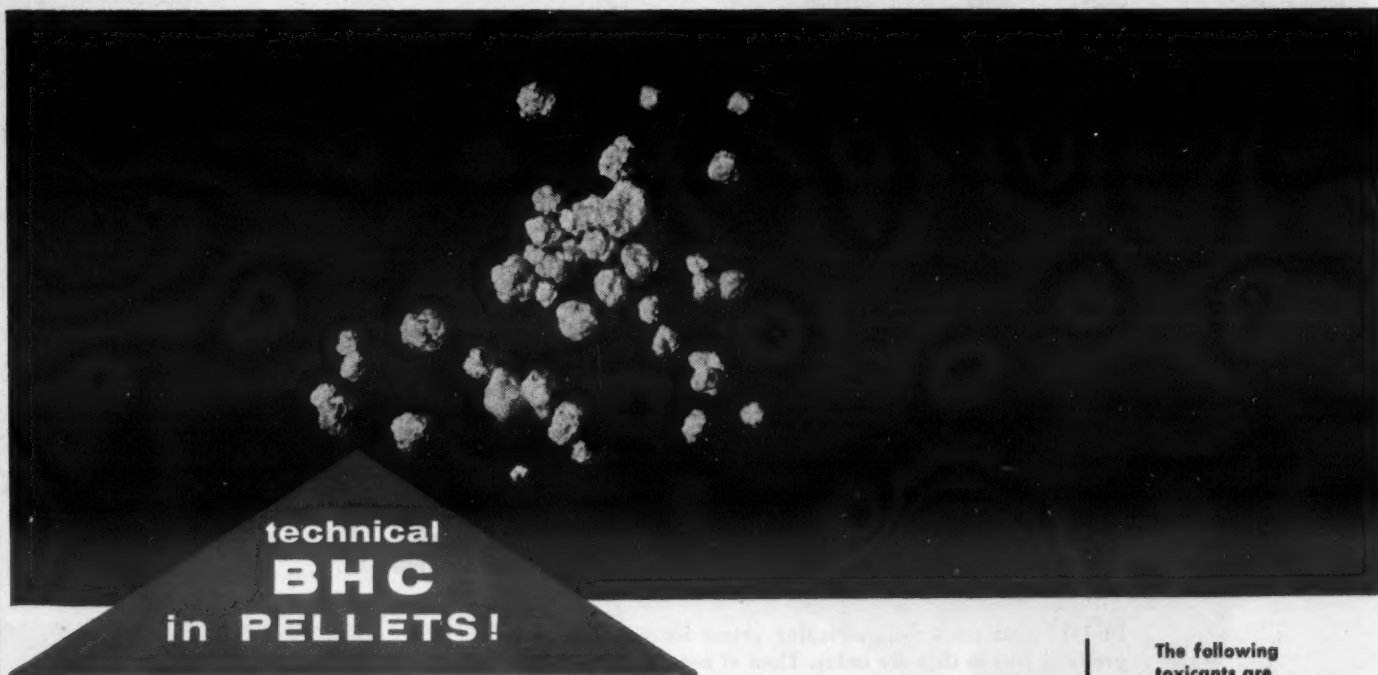
This organization to be known as the Union Chemical Carline, Inc. is being organized to handle the products of the Frontier Chemical Co. and its offices will be located at the Frontier plant, Wichita.

Company officials will be Wichitans, with Curtis V. Cannon, president and D. M. Veon, secretary-treasurer. Richard F. Mullin is the firm's resident agent and attorney. It is anticipated operations will begin as soon as final papers are completed, which will take from two weeks to a month, according to Wesley H. Sowers, executive vice president for the Frontier Chemical Co.

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Michigan Chemical Sales, Net Profit Increase in 1955

ST. LOUIS, MICH.—As reported in its 1955 annual statement to stockholders, Michigan Chemical Corp. showed a net profit a share of \$0.64, or \$341,314, on the 537,077 shares outstanding against a net loss in 1954 of \$228,894, or \$0.43 a share. Of this 1955 net profit, however, \$0.19 came from non-recurring income resulting from the sale of property.

Sales totaled \$6,526,275 for the year, or a 12% increase over the 1954 figure of \$5,829,342. Depreciation to the amount of \$387,753 was taken during the year. Working capital increased to \$3,342,856 in 1955 from \$2,718,246 in 1954.

"While expenditures for construction in 1955 were less than in 1954,

capital investment projects to the total of \$760,000 for 1956 were scheduled at the end of the year and additional programs for 1956 are anticipated," said Theodore Marvin, president, in his letter to stockholders.

Improvements in processes and products were accomplished during the year and several new-product units commenced operations. Added capacities of some of the company's chemical materials for industrial and pharmaceutical applications were being enlarged.

Mr. Marvin reported on the new joint-venture project with Murphy Corp. for the construction of a bromine plant near El Dorado, Ark. Diversification of the company's activities into the rare earths field was also discussed in the report.

A new director of research, Dr. Dwight Williams, was appointed in November and "additional research staff and facilities are being added to handle the increasing demands of our process improvement and com-

pany expansion programs," said Mr. Marvin.

During the year, the company employees achieved a 1,000,000 man-hours non-accident record. A three-year labor contract was signed in November.

District Pest Control Meeting Scheduled

KANSAS CITY, KANSAS—A district pest control meeting has been scheduled at the Town House Hotel here Feb. 23-25. It will be held through the cooperation of state pest control associations of Kansas, Iowa, Nebraska and Missouri and the National Pest Control Assn.

IDAHO PESTS

MOSCOW, IDAHO—There are between 250 and 300 economic pest insects which are destructive to Idaho crops, according to Roland W. Portman, University of Idaho extension entomologist.

Frontier Chemical Moves to Offices In Wichita Airport

WICHITA—The Frontier Chemical Co. moved recently from its downtown offices to the second floor of the Wichita Municipal Airport Terminal Bldg., where it has leased 3,000 square feet of office space.

A large volume of business comes from out of town associates, who travel by air and Mr. Sowers, executive vice president of the company, said the new location will be more convenient for them.

The air-conditioned office suite has been especially designed for the Frontier Chemical Co. The director's room has a panel-enclosed kitchen with panels movable so that the director's room and kitchen can be converted into a hospitality room.

The private offices of Curtis V. Cannon, president, and Wesley Sowers, executive vice president, look out over the runways and departure and arrival stations of the airport. Mr. Sowers said loud speakers behind vents in the offices and hospitality room will relay announcements of plane departure times.

The general offices are equipped with a high fidelity tape recording system which will pipe soft music throughout the working day, to speakers located behind air vents in the ceilings of all rooms.

Especially striking in the office decor is an aluminum entrance, featuring frosted glass in a design which portrays the physical structure of salt, showing connections between molecules of sodium and chloride. Salt is a major raw material used in the firm's products.

The company recently enlarged its plant southwest of Wichita and further expansion of plant facilities is presently under progress. Mr. Sowers said the company will soon add a line of chlorinated solvents to its products.

Paul L. Dittemore Named Director of Miller Publishing Co.

MINNEAPOLIS—Paul L. Dittemore, who has been co-manager of the eastern states office of Croplife in New York, was named eastern advertising sales manager and was elected to the board of directors of The Miller Publishing Co. at its recent annual meeting here.

George W. Potts, who was co-manager of the eastern states office, was named New York office manager. Walter C. Smith is editorial assistant in New York.

In addition to Mr. Dittemore, other directors of the company, all re-elected, are Carroll K. Michener, chairman of the board; Harvey F. Yantis, president; Milton B. Kihlstrum, executive vice president and treasurer; Martin E. Newell and Don E. Rogers, vice presidents, and Wilfred E. Lingren, secretary.

Richard L. Ostlund was named office manager at the Minneapolis home office.

Fred Grasser Joins J. R. Simplot

POCATELLO, IDAHO—Fred Grasser, 27, has been hired as assistant production superintendent by the Fertilizer Division of J. R. Simplot Co. It was announced here by Grant Kibourne, division manager.

A chemical engineer, Mr. Grasser graduated from Washington State College in 1951. His employment since graduation has been with Pacific Coast Borax Co. as a production engineer. Previous to 1953, he served in the Air Forces as a pilot for two years.

Mr. Grasser was born at Wawawai, Wash. and attended high school at Clarkston, Wash. The new employee is not married.



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California Changes Regulations Governing Use of Herbicides

SACRAMENTO — The California Department of Agriculture has changed its regulations governing use of injurious herbicides to allow use of highly volatile formulas under certain restrictions in the Carriso Plains District of San Luis Obispo County and exempt certain small quantity formulations from requirement of a permit.

The changes were made on the basis of testimony taken at a public hearing in November. Regulations formerly forbade use of the highly volatile forms of 2,4-D and other injurious herbicides anywhere in the state because drift of the vapors damaged susceptible crops in neighboring fields.

Grain growers in the Carriso Plains District presented evidence and testimony that the highly volatile forms were needed to control weeds in their

fields and that drift of vapors did not present a hazard to other crops in their isolated area.

The revised regulations provide that no permit is required to use an injurious herbicide delivered in a quantity of not more than one pint of liquid or one pound of dry formulation in any 24-hour period regardless of the percentage of the active ingredient in the material.

Furthermore, no permit is required to use a commercial fertilizer, agricultural mineral, or granular material containing less than 10% of injurious herbicide, prepared for use as a dry material without further dilution and delivered in a quantity of not more than 24 lb. in any 24-hour period.

MAN OF THE YEAR

BLACKSBURG, VA.—Dr. H. L. Dunton, head of the Department of Agronomy at Virginia Polytechnic Institute, has been named "Man of the Year in Service to Virginia Agriculture" by the Progressive Farmer magazine.

Douglas D. Blocker Joins National Potash

NEW YORK—National Potash Co., New York, has announced the appointment of Douglas D. Blocker as sales representative in southern Virginia, North and South Carolina and the northern portion of Georgia.

Mr. Blocker was formerly associated with American Cyanamid Co. He will make his headquarters at 846 Castlewood Drive, Greensboro, N.C.

Witco to Move San Francisco Office

SAN FRANCISCO—Witco Chemical Co. will move its office here March 1 to new, more modern quarters.

The new office, under the direction of J. L. Mattson, District Manager, is larger than the old location and has parking facilities adjacent. New address is 80 Stonestown, San Francisco 27. The old office was located at 75 Market St.



COMPARING RESULTS—E. H. Lemire, North Carolina representative for Shell Chemical Corp. and J. C. Whitehurst, Jr., Greenville, N.C., compare tobacco plants on the Whitehurst farm. The plant held by Mr. Lemire at the left, came from nematode-infested soil, while the plant held by Mr. Whitehurst was taken from an adjacent plot which had been treated with D-D.

Shell Moves District Office; New Atlanta Representative Named

NEW YORK—The Agricultural Chemical Sales Division of Shell Chemical Corp. moved the office of its recently consolidated Delta-Houston district from Jackson, Miss. to New Orleans Feb. 8. The central location of New Orleans was given as the reason for the move by F. W. Hatch, division manager.

Coincident with the move the district was named New Orleans with J. F. White continuing as district manager. The office is located at 119 S. Claiborne, New Orleans 12, La., phone EXpress 1561.

The company will maintain its area office in Houston under the supervision of A. J. Garon.

The consolidated district now covers a seven-state area: Texas, Oklahoma, Arkansas, Mississippi, Alabama, Louisiana and part of Tennessee.

Mr. Hatch also announced two personnel changes in the Agricultural Chemical Sales Division.

C. H. Daniels, recently returned from a special assignment, was appointed to the Atlanta district as a sales development field representative. Mr. Daniels graduated from Massachusetts State College (BS and MS in entomology) and started with Shell in its Boston division in January, 1947. He has been employed in the marketing phase of the company's agricultural chemicals since that date.

O. W. Whitehead, formerly with the U.S. Department of Agriculture, has joined Shell's Atlanta district as a sales representative. Mr. Whitehead was district supervisor of plant pest control at Statesboro, Ga. Prior to his employment with the USDA, he attended Alabama Polytechnic, Alabama, where he majored in agriculture.

Robert T. Brownscombe Joins Atkins, Kroll

SAN FRANCISCO—Atkins, Kroll & Co., San Francisco, Los Angeles and New York, announces that Robert T. Brownscombe is now associated with the company in fertilizer sales.

A native of Lodi, Cal., Mr. Brownscombe resides in Berkeley with his wife and two children. He is a graduate of University of California's College of Agriculture.

He has served with the State Department of Agriculture, Spreckels Sugar Co., San Joaquin Valley Poultry Producers Assn. and for the past years has handled sales of fertilizer and other farm materials for California Farm Supply Co.

HOW UNION BAG BUILDS MORE BUSINESS FOR THE FERTILIZER INDUSTRY

**"Now I know...
cutting down on fertilizer
actually costs me money"**

**John Patrick, truck farmer,
Marlow, Ga.**

"I've known about fertilizer for a long time," says John Patrick, who with his brother Carl runs a 100-acre truck farm near Marlow, Ga., "but I didn't realize that every dollar invested in fertilizer can bring a farmer a four dollar return in crop value! That's how the U. S. Department of Agriculture figures it. Like a lot of farmers, I'd tried to save money by cutting down on fertilizer, but actually I was losing money, as I got lower yields on my crops. Now I know fertilizer is my best investment."

Union's information program increases fertilizer use

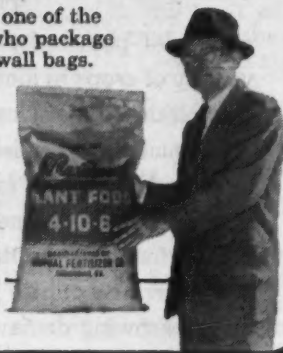
Mr. Patrick discovered his "profit formula" in one of the farm magazines he reads. The article was one of many prepared by Union as part of a countrywide newspaper-radio-television educational campaign to help farmers use more scientific methods.

One of the main purposes of this program is to show your customers how to make the best use of fertilizer. As one of the major manufacturers of Multiwall paper sacks for fertilizer, Union Bag is happy to make this contribution to the industry.

Mutual Fertilizer Company is one of the many leading manufacturers who package their products in Union Multiwall bags.

**Mr. Charles Ellis Jr., President,
Mutual Fertilizer Company,
Savannah, Ga.**

"I believe Union Bag's information program on the scientific use of fertilizer will help the farmers. Union does as well with its Multiwalls as it does with its fertilizer program. We use Union Multiwalls. They're among the best."



UNION Multiwall Bags



UNION BAG & PAPER CORPORATION - WOOLWORTH BUILDING, NEW YORK 7, N. Y.

SOUTHERN AG WORKERS

(Continued from page 1)

Research, Sperry-Rand Corporation, New York, told the joint session that "a sound grassland program where the objective is to grow, harvest, store and feed grassland crops of the highest nutrient quality to herds and flocks was not possible until grass silage was introduced into the management program."

Mr. Bender produced results from experiments that indicated nutrients produced by well managed productive pasture were the cheapest of all nutrients fed ruminant livestock. Grass silage nutrients were produced at two-thirds the cost of hay nutrients while grain nutrients, although important to livestock production, were the most expensive.

He said this system allows more cattle to be fed per acre with less man hours of labor and more milk

production from grassland crops at a lower cost.

A new practice by farmers in the southeastern states of following row crops behind grass crops in a regular sequence was praised by a soil conservation agronomist.

J. E. Pollock, SCS management agronomist, said the newly recommended vegetative practices may well be termed "applied agronomy."

Tobacco, cotton, corn, peanuts, and cantaloups are the crops that were grown following Pensacola Bahai, Common and Coastal Bermuda and fescue.

Tobacco, a high value cash crop, was planted behind the bahai grass by a number of the farmers reporting and a successful report was issued by most of them.

Harold R. Jensen, University of

Kentucky, spoke to the group on farm management considerations in forage crop and pasture production. He said most farmers have two major decisions to make on forage crop and pasture production.

"They have land which can be used for row, forage or other crops. Hence, they must decide on how much forage to grow along with non-forage crops," Mr. Jensen stated.

He urged the profitability of the investment to be judged like any other farm investment saying "it is always measured by its alternative returns elsewhere on the farm."

He said the value of forage is the indirect return from a larger production of non-forage crops from given resources or costs. The main decisions for farmers who seek to grow forage along with other crops in rotation is to decide whether or not the non-forage crops are feed grains, what are the relative values in producing a given quality of livestock basic, and determining whether it pays to use more or less forage in livestock than

the most profitable amount to produce.

Discounted costs and returns each system over a given period years furnish the basis for deciding how far to go in pasture improvement to get most income from farm.

A trio of University of Georgia faculty members gave summaries of the differential response of five varieties to varying fertility levels in one section of the state. Color slides and charts were used in illustrating the information.

A preliminary report on the effect of crop rotations on peanut yield, soil fertility and disease and insect populations was given by P. H. R. E. T. York, Jr., W. E. Cooper, and J. R. Dogger, all of the North Carolina State College, Raleigh.

Reports on Coastal Bermuda, developed in Georgia by Dr. Glenn W. Burton at the Coastal Plain Experiment Station, were given by Dr. Burton and two of his associates. Farmers in the state have called this grass "the greatest invention" since the livestock industry boomed in Georgia.

Dr. Burton and other southeastern agronomists discussed the use of nitrogen by the grass and the effect it had on the palatability.

A. T. Wallace and W. H. Chapman, Agricultural Experiment Station, Gainesville, Fla., told the group tests on the effects of planting date and clipping on maturity and yield of oats in Florida.

The agronomic phases of grass silage in the Everglades of Florida were discussed by several members of the Everglades Experiment Station at Belle Glade.

E. M. Trew, Texas A&M College, explained the package crop demonstrations carried on in the extensive agronomy program in that state.

Three Auburn, Ala., agronomists drew quite a bit of attention with their presentation of beef gains and forage yields. The idea of grassland farming in the southeast is the uppermost topic of discussion with most farmers.

Irrigation topics by several agronomists, attending the three-day meeting, were well attended because the recent droughts in this area. T. Peele and R. H. Hawkins, Clemson Agricultural College, Clemson, S.C. compared interrelations of irrigation, soil fumigations and fertilization of crops grown in that part of the nation.

Most of the agronomists attending the meeting agreed that the joint program on grassland farming offered the best potential farmer-level information. They said the recent soil bank proposals have placed added emphasis on the subject.

The agricultural economics, agricultural sociology, agricultural engineering, animal husbandry, dairying and soil conservation sections of the meeting held joint sessions during the first day of the convention.

The Association of Southern Agricultural Workers meets each year to hear reports on the latest results of experiments, tests and surveys from some 150 organizations.

Fred H. Hull, Florida Agricultural Experiment Station, served as president of the agronomy section this year. J. Fielding Reed, American Potash Institute, Atlanta, and W. Colwell, North Carolina Experiment Station, were vice president and secretary, respectively.

The 1957 convention will be held in Birmingham, Ala. the first week in February.

HORTICULTURE AWARD

AMHERST, MASS. — Prof. William L. Lachman of the University of Massachusetts Department of Horticulture, has received the silver medal for achievement in horticulture from the all-American selections committee.

DOUBLE VALUE
DOUBLE POWER

FOR YOU...

FOR FARMERS

Sul-Po-Mag®

Water-Soluble Double Sulfate
of Potash-Magnesia
 $K_2SO_4 \cdot 2MgSO_4$
22% K_2O - 18% MgO

SULFATE OF POTASH

for the profitable production of
crops sensitive to chlorides

SULFATE OF MAGNESIUM

for high yields and quality on
magnesium-deficient soils

The need for sulfate of magnesium and sulfate of potash for the profitable production of a wide variety of crops in many farming areas is shown by research carried on by many agricultural colleges.

Consistent advertising in farm papers, and on radio and billboards is telling farmers that the most effective way to supply soluble magnesium and potash is to use a quality mixed fertilizer containing Sul-Po-Mag. We're building consumer acceptance for your premium grades—so cash in on the growing demand by asking your fertilizer manufacturer for grades containing Sul-Po-Mag for use on soils that are low in magnesium and potash. Look for the analysis on the bag... N-P-K.

Mg



POTASH DIVISION INTERNATIONAL MINERALS & CHEMICAL CORPORATION • GENERAL

DOUBLE
POWER

Sul-Po-Mag supplies both sulfate of magnesium and sulfate of potash in balanced combination and in water-soluble form.

It's used by leading fertilizer manufacturers in the premium grades they make for soils low in magnesium and potash.

Sul-Po-Mag is a well conditioned material that mixes effectively with other plant foods to produce quality fertilizers which handle smoothly in any distributing equipment.

DOUBLE
VALUE

Sul-Po-Mag delivers double value, too. It provides the extra ingredients that make your fertilizer a premium quality grade you can sell with pride and confidence. It supplies the extra ingredients that bring farmers many dollars of extra profit for small additional cost.

AT CARLSBAD, NEW MEXICO

At Carlsbad, New Mexico, the POTASH DIVISION mines and refines these materials for the production of quality fertilizers—
Muriate of Potash,
Sulfate of Potash,
Sul-Po-Mag.

OFFICE, 30 NORTH WACKER DRIVE, CHICAGO 5

Better Selling

A SPECIAL CROPLIFE DEPARTMENT TO HELP RETAILERS IMPROVE MERCHANDISING KNOW-HOW

Service After the Sale Helps New Jersey Retailer Become Farm Problem Headquarters

By PHIL LANCE
Croplife Special Writer

Service after the sale is considered an essential factor in the growth of the Parkhurst Farm and Garden Supply Co., Hammonton, N.J. It not only builds good-will for the dealer but also assures him of the customer's future business.

"We do not consider a sale complete after the delivery of an order," says W. Hubbard Parkhurst, Jr. "Rather we consider it just the beginning of a long term close cooperation period. As a result, we help our customers make the best use of their fertilizers, insecticides and fungicides and this close contact assures us of practically all their business from that time on."

Service after the sale is handled by a specially trained employee. He is familiar with the different types of crops that are being raised throughout southern New Jersey, knows what fertilizers are best for the particular crops and the best means of application.

"Having a thorough knowledge of the insects that attack these crops and diseases is also an important point," explains Mr. Parkhurst, "and our serviceman knows exactly how to handle these problems. As a result, we are constantly being called upon by customers and non-customers to help them raise a healthy crop which has proven most helpful to us in enjoying a volume business in these supplies."

Parkhurst Farm handles a varied line of fertilizers, insecticides and fungicides brought about because of the great crop variety in the area that it serves. These crops are tomatoes, blueberries, sweet potatoes, peaches, asparagus, cranberries and other vegetable and fruit varieties. Southern New Jersey is known for its great variety of vegetable and fruit crops.

Right before the season starts for any of these crops, the serviceman pays a call on all Parkhurst customers. He learns the particular crop that the farmer is going to raise and offers his suggestions in getting started right. All visits are followed up by literature promoting fertilizers, insecticides and fungicides.

"Farmers have a habit of only buying a portion of their requirements at one time," says Mr. Parkhurst, "and we never pressure them to increase it at that time. They have their reasons for it, and we know that if we give them good service that they will buy the remaining quantities from us." One reason for placing a partial order may be lack of capital.

Customers may anticipate a change in program because of infestation changes or they feel that they can just do with only a minimum quantity. In these cases, we must keep a close watch on the farmer to prevent him from letting an otherwise healthy crop go bad because of undernourishment or lack of pest control.

As a constant reminder to farmers of their fertilizer, insecticide or fungicide needs, Mr. Parkhurst uses newspaper inserts and a large bulletin board in the store. The news-

paper ads tell farmers when the season is ripe to use a specific fertilizer on certain crops. This is followed up by periodic messages that tell the farmers what kind of insects or diseases to look for and what to use on their crops. And at all times, the ads tell the farmers to call the store for any information that they need along these lines.

A large bulletin board in the store is another reminder of these needs. Mr. Parkhurst posts notices that come in from the state Department of Agriculture and farm schools. He also writes notices on the board reminding farmers of the need for certain materials on various crops, and this is a constant reminder to store traffic.

"One of the most healthful bits of information that we have on hand and available to local farmers, is a visible ledger file that itemizes the various crops that are raised in southern New Jersey and the different pests, diseases or insects that may attack them," Mr. Parkhurst says. "We accumulated this file system over a period of years and it is referred to constantly."

This file is sectionalized into the different crops being raised in the area. Then each card gives complete data and descriptive information that define the particular work of an insect or a disease. The materials to be used on these crops and the best way of application is also noted.

"The troubled farmer just tells us what is wrong with his particular crop and from his description we can tell what the problem is," Mr. Parkhurst says. "Then we sell him the materials that he needs and will dispatch our serviceman to his farm to give him added help."

"Setting ourselves up as a sort of headquarters for farm problems has been very helpful in attracting business from far distances that we don't even consider to be our sales territory. But these farmers know about us, come here for information and take back a load of fertilizer, dusting or spray materials."

Knowing how to apply certain ma-

(Continued on page 16)



STRESSES SERVICE—W. Hubbard Parkhurst, Jr., of Parkhurst Farm and Garden Supply Co., Hammonton, N.J., builds his business with a policy of service after the sale. Mr. Parkhurst is shown above using his visible ledger file, which helps him diagnose a farmer's problem during a telephone conversation.



SHOP TALK

OVER THE COUNTER

FOR THE DEALER

By EMMET J. HOFFMAN
Croplife Merchandising Editor

A farm products dealer will get four times as much mileage out of his advertising if he will take the time to do a good job. That is the claim of Don Peach of St. Louis, agricultural specialist with the Gardner Advertising Agency.

He cited a survey taken by his client, Ralston Purina Co., in the "good years of 1951-52." Two hundred and nine dealers who maintained local advertising campaigns showed an average sales growth of 48%. One hundred and ninety seven dealers who did little or no advertising averaged a growth of only 3%.

Mr. Peach stresses the value of putting material of local interest in the advertisements themselves. Results of identically-sized advertisements placed by a Tennessee dealer prove his point. One ad showed the picture of a local customer; the other had a general mat illustration suitable for any community in the nation. When subscribers were interviewed, 94% remembered the localized ad and 61% remembered the mat ad; 94% said they read the local ad and only 22% said they read the mat ad; 89% mentioned a preference for the local ad.

"The cost was the same," states Mr. Peach. "But the local ad got four times as many readers as the general one." He says that the localized ads please the customers pictured in them, too.

The speaker urges dealers to follow a plan, rather than running an ad on impulse or turning the matter over to a "good friend" from a newspaper or radio station.

He says it is important to do a good job in one medium before spreading the advertising budget into other media. Rural radio is still very much alive, but a saturation of spot announcements would bring better results proportionately than scattered spots, he emphasizes.

Mr. Peach also stressed the value of billboards next to the highways leading to towns. "Farmers are naturally outdoor people and they are travelling more than ever to and from town."

Above all, he urges dealers to do their own advertising planning and follow it up with personal selling. Too many, he says, are waiting for the visiting expert or the local ad salesman to do a job that only the dealer can do.

Farm Custom Rates

Have you taken a look at your farm custom rates lately to see if they will make an adequate profit for you in 1956?

Iowa State College, in its publication, Iowa Farm Science, has some suggestions for farm custom rates, based on College Farm Service findings last summer. The College Farm Service operated more than 1,500 acres of cropland last year.

Spreading commercial fertilizer broadcast cost the College Farm Service \$1.30 an acre. The operating margin suggested is 30%, making the suggested range in actual charges from \$1.45 to \$1.85 an acre. The range in prices allows for var-

(Continued on page 14)



By RAYMOND ROSSON

County Agent, Washington County, Tenn.

There is more to merchandising than just making a sale, and especially is it true of seed and fertilizer dealers. A good dealer might be called a "pump primer." He advises (along with the county agent) farmers what seed to buy and the kind and amount of fertilizer to use.

Why should you sell a farmer just phosphorus when he needs nitrogen and potash as well? Do you insist that the farmer have his soil tested? Do you actually know how much plant food it takes to produce a hundred bushels of corn, or four tons of alfalfa hay?

Suppose you tell him wrong about these things. The correct answer means a lot to that fellow out there on the land. It could mean a profit or it could mean a loss, and it doesn't help our economy one bit for any one to produce at a loss.

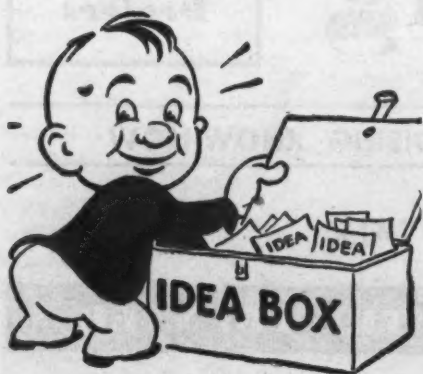
It will soon be time for "priming the pump," as farmers start their annual spring planting. In reality it means much toward a better business on Main Street and a satisfying dinner pail for industry.

If farmers do take some acres out of production, they'll want more of what you dealers have than ever before. And after all there are some few millions more mouths to feed than we had last year. This extra food will have to come from fewer acres and fewer people will produce it.

Let's make a good garden this year. The garden was man's first home. A good gardener is usually a good neighbor. The hoe handle may get heavier than the fishing rod, but your chances of growing some nice fresh vegetables might be greater than landing that big bass you've always wished for.

Better Selling

Richer Sales Fields for Dealers



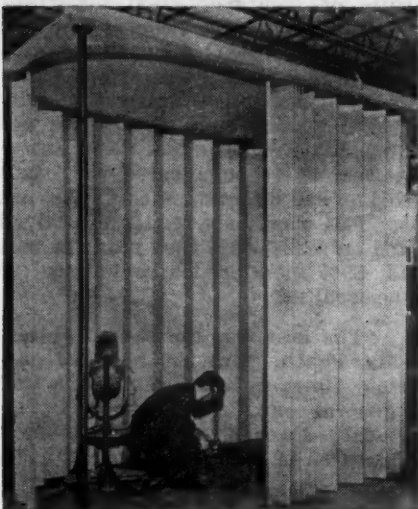
What's New...

In Products, Services, Literature

You will find it simple to obtain additional information about the new products, new services and new literature described in this department. Here's all you have to do: (1) Clip out the entire coupon and return address card in the lower outside corner of this page. (2) Circle the number of the item on which you desire more information. Fill in your name, your company's name and your address. (3) Fold the clip-out over double, with the return address portion on the outside. (4) Fasten the two edges together with a staple, cellophane tape or glue, whichever is handiest. (5) Drop in any mail box. That's all you do. We'll pay the postage. You can, of course, use your own envelope or paste the coupon on the back of a government postcard if you prefer.

No. 5387—Wall Products

New developments in the use of wall products manufactured by the TransWall Coated Products plant of the Bemis Bro. Bag Co. have been



announced. The new plant is manufacturing and marketing the firm's products, called by the trade name, TransWall curtains, BemisWall cur-

tains and Bemisorb. The TransWall curtain makes use of an "area" noise control concept through the use of light-weight retractable sound barriers, according to the company. Installations are being used in many plants both for anti-noise work and for draft control. BemisWall curtains are a type of folding door or partition for general application in offices and other establishments. Bemisorb is a line of coated fabric for a broad range of industrial and technical applications. To secure more complete details check No. 5387 on the coupon and drop it in the mail to this publication.

No. 6375—Tarpaulins

Heavy-duty vinyl plastic tarpaulins for a variety of horticultural and agricultural uses, including steam sterilization of soil and preservation of silage, are being made and distributed by Larvacide Products, Inc. They are sold under the company's Larvacover trademark and fabricated from a special vinyl formulation. They are recommended for use as soil-fumigation covers, greenhouse-bench liners to permit double-decking, erosion preventives, irrigation-ditch liners and water-conservation aids. The product

comes in heavy-duty and standard (4-mil) thicknesses. Standard rolls are 100 and 150 ft. long and are available in widths of 6½ and 10 ft. However, the manufacturer will furnish custom sizes on request. Hemmed ends give the material better tear resistance and make it easier to handle. All seams are made electronically. Two colors—clear and dark green are available. Descriptive literature is available by checking No. 6375 on the coupon and mailing it to Croplife.

No. 6376—Bulk Scales

A 2-color, 6-page bulletin describing three models of the class 38 automatic weighing unit for bulk materials is offered by Richardson Scale Co. The bulletin states that "these heavy duty scales are designed for handling dry, ground, granular, dusty and non free-flowing materials." The bulletin discusses construction, operation, feeding arrangements and capacities for the scales. Gravity, belt, screw and vibrating feed arrangements are shown in diagram. Special features such as hopper door flapper, locking gear, automatic compensation mechanism and automatic tabulator are described and illustrated. A complete line of accessory equipment, including a pneumatic gate assist, residue beam, remote electric counter, and agitators is discussed. A list of over 120 materials that the class 38 has handled effectively is included. Secure the bulletin by checking No. 6376 on the coupon and mailing it to Croplife.

Also Available

The following items have appeared in the What's New section of recent issues of Croplife. They are reprinted to help keep retail dealers on the regional circulation plan informed of new industry products, literature and services.

No. 5383—Hydraulic Lift

The Crown Controls Co., Inc., has announced features of its new E-Z lift (model LT-1000) 1,000-lb. capacity hydraulic lift for use where limited space is a problem. The lift is for one-man operation and has a push-pull handle which operates the hydraulic mechanism located at a convenient height on the lift. Loads can be elevated to any height between 5¼ in. and 54 in. above the floor. The lift rolls smoothly on roller bearing equipped rubber front wheels and roller bearing equipped swivel-type rear casters. The positive-action brake is foot operated and has a trigger release. The lift is equipped with a safety overload release which re-

CROPLIFE, February 20, 1956



fuses loads of more than 1,200 lb. Constructed of strong tubular steel, the lift is 64 in. high, 24½ in. wide and 35 in. long. It weighs 270 lb. The safety plate platform is 24 in. by 24 in. Straddle capacity is 16½ in. Secure more complete details by checking No. 5383 on the coupon and mailing it.

No. 5384—Sales Brochure

A new sales management brochure "Who's Selling Who?" is being made available by Cappel, MacDonald & Co. The brochure emphasizes the theme, "getting men to sell." In the foreword can be found the following phrase: "Fact No. 1. Salesmen and salesmanship are not perfect. (What is?). Fact No. 2. Sales, salesmanship and salesmen can be improved." It is explained further that the criticism offered is meant to be friendly and helpful to open the door, at least partially, to the room for improvement that exists. Secure the brochure by checking No. 5384 on the coupon and mailing it to this publication.

No. 6373—Recording

"The D-D Hop," a new "scat" tune, has joined "Boll Weevil Blues" and "Corn Huskin' Blues" in Shell Chemical Corporation's music library. Designed essentially as a commercial to accompany the firm's 26-week sponsorship of the noon weather show over the Tobacco Network in the tobacco belt, the tune has also been prepared as a full length popular recording. While it entertains, it tells the importance of soil fumigation and D-D's part in controlling nematodes. The recording features Julie Conway and the Nelsons, backed by a 6-man musical group. People who want to use the platter can secure it by checking No. 6373 on the coupon and mailing it to Croplife.

No. 6370—Products Catalog

The Wil-Kil Pest Control Co. has produced a catalog describing its service, chemicals and equipment. Sections of the catalog are devoted to livestock insecticides, municipal insecticides and related chemicals, fumigants, weed and brush control products, wood preservatives, food plant insecticides and spraying equipment. Prices and shipping information is also available. Secure the literature by checking No. 6370 on the coupon and mailing it to Croplife.

No. 6374—Fertilizer Handbook

The soil improvement committee of the California Fertilizer Assn. is offering its "Western Fertilizer Handbook," now in its second edition, for \$1 per copy. Orders may be sent directly to the California Fertilizer Assn., 475 Huntington Drive, San Marino 9, Cal. Called a reference

Send me information on the items marked:

- | | |
|---|--|
| <input type="checkbox"/> No. 5376—Draft Curtain | <input type="checkbox"/> No. 6370—Products Catalog |
| <input type="checkbox"/> No. 5379—Tax Booklet | <input type="checkbox"/> No. 6371—Duster Package |
| <input type="checkbox"/> No. 5380—Booklet | <input type="checkbox"/> No. 6372—Soil Insect Film |
| <input type="checkbox"/> No. 5383—Hydraulic Lift | <input type="checkbox"/> No. 6373—Recording |
| <input type="checkbox"/> No. 5384—Sales Brochure | <input type="checkbox"/> No. 6374—Handbook |
| <input type="checkbox"/> No. 5387—Wall Products | <input type="checkbox"/> No. 6375—Tarpaulins |
| <input type="checkbox"/> No. 6366—Water Conditioner | <input type="checkbox"/> No. 6376—Bulk Sales |
| <input type="checkbox"/> No. 6369—Termite Control | |

NAME

COMPANY

ADDRESS

CLIP OUT—FOLD OVER ON THIS LINE—FASTEN (STAPLE, TAPE, GLUE)—MAIL

FIRST CLASS
PERMIT No. 2
(Sec. 34.9,
P. L. & R.)
MINNEAPOLIS,
MINN.

BUSINESS REPLY ENVELOPE

No postage stamp necessary if mailed in the United States

POSTAGE WILL BE PAID BY—

Croplife

P. O. Box 67,

Reader Service Dept.

Minneapolis 1, Minn.

work of interest to all persons interested in soil fertility and plant nutrition, the handbook contains 160 pages and features 12 color plates, most of which depict plant food deficiency symptoms. Many black and white illustrations and a glossary of terms and conversions are also included. Single or multiple copies may be obtained for \$1 each.

No. 6371—Duster Package

"Whiff'n poof" describes the action, appearance and the sound of a new squeeze duster package for Du Pont garden dusts. The Du Pont spokesmen said one squeeze of the flexible package sends a puff of dust far into a mass of foliage. Four of the company's garden dusts will be packaged in the package during the coming year. The new 8-oz. package is a cylinder of "Alathon" polyethylene resin, fitted with a directional nozzle to send the dust where it is aimed. Labels, lids and bottoms of the package are all "weatherproof" to keep the package serviceable through repeated re-fills, it is claimed. Du Pont insecticide-fungicide combinations to be available in the new container are rose insecticide and fungicide, floral dust, vegetable garden dust and tomato dust. Secure more complete details by checking No. 6371 on the coupon and mail it to this publication.

No. 5376—Draft Curtain

The Bemis Bro. Bag Co. has complete information available on its retractable curtain, called TransWall, for plants, warehouses, etc., to shield doorways during cold weather. The curtain slides readily out of the way for free use of floor space, the manufacturer states. Other features claimed are: It is built of a heavily coated fabric and installs easily on a single overhead track. Nylon rollers permit instant retractability. Little space is used when retracted. For example, a curtain 20 feet wide retracts to only 2 ft. TransWall is available in custom sizes to suit individual needs. Complete information may be obtained by checking No. 5376 on the coupon and mailing it to this publication.

No. 6372—Soil Insect Film

"Corn's Hidden Enemies," the film story of one corn farmer's successful fight against soil insects, is being reissued free of charge to county agents and other farm leaders by the Shell Chemical Corp.

The film deals with the soil insect problems of a Danville, Iowa, corn farmer named Howard Waters, and the measures he took to save his crop. In the movie, Mr. Waters calls on the local county agent for help in his fight against the underground pests which are ravaging his fields. The agent, in turn, asks advice from Iowa State College where entomologist John H. Lilly suggests that a chemical insecticide be used. Mr. Waters follows the entomologist's advice and applies aldrin to his soil and the film shows the results. When ordering, it is recommended that at least one alternate delivery date be listed. The film has a running time of 12 min.

No. 6369—Termite Control

The Shell Chemical Corp. has prepared a new four-page booklet entitled "Termite Control with Dieldrin." It tells how to detect termites and, in a series of illustrations, shows how pest control operators control them with dieldrin. Three types of buildings are considered: Those with crawl space between the floor and the ground, those with a concrete floor flush against the ground and those with basements. Dosage rates per square foot are also explained. The booklet includes a brief history

of the pests, their social organization, and the extent of their yearly damage. One section deals with the resemblance of termites to "white ants" and gives hints on distinguishing between them. The use of dieldrin as a protection against termites in the soil is brought out in the final section of the booklet. Secure your copy by checking No. 6369 on the coupon and mailing it to Croplife.

No. 5380—Booklet on Salesmen

How the modern salesman works, what he does, and why, is portrayed in a 32-page booklet entitled "The Salesman Story" published by the Du Pont Company. It illustrates the vital function performed by the nation's five million salesmen and the vast sales effort that employs, directly or indirectly, perhaps 15 million men and women. It relates how the old-time drummer passed out of the scene to make way for men who, by their selling, create new industries and new products that raise the standard of living for all. "The modern industrial salesman is a professional. Glad-handing and back-slapping are not his basic attributes," the documented booklet reports. The "new kind of salesman" must often be part scientist, part economist, or specialist in other fields. "He is mature, in experience and know-how, before he tries to sell." The booklet is available by checking No. 5380 on the coupon and dropping it in the mail.

No. 5379—Tax Booklet

"How to Save Money on Your Farm Income Tax" is the title of a new booklet prepared by the J. K. Lasser Tax Institute and offered free by the Nitrogen Division of Allied Chemical & Dye Corp. The booklet is written in clear, every day language to enable the farmer to grasp his tax deduction situation with a minimum of reading. Among subjects covered are: How to compute your farm income, forms to use, farmer's self employment income, declarations for farmers and crop damage payments. One section is entitled "Special Tax Saving Check List for Farmers." A free copy of the booklet may be secured by checking No. 5379 on the coupon and dropping it in the mail to this newspaper.

No. 6366—Water Conditioner

The Packard Manufacturing Co. is marketing a new water conditioner that is claimed to eliminate and prevent scale and corrosion formations in boilers and water systems without the use of chemicals. The conditioner is for use on boilers, air conditioning and refrigerating systems and other industrial applications where water problems exist. The conditioner is manufactured in sizes handling from 6.5 to 1,760 gallons per minute for connection with corresponding standard iron pipe sizes ranging from 1/2 in. to 12 in. Larger sizes are also available. Secure more complete information by checking No. 6366 on the coupon and mailing it.

Number of Large Farms Shows Increase

WASHINGTON—The number of farms of 1,000 acres and over has doubled the last 30 years, according to the 1954 Census of Agriculture.

In 1925 there were 63,328 farms of 1,000 acres and over. By 1954 the number of farms 500 acres or more had increased 55.5% and now comprise more than 6.7% of the nation's farms.

On the other hand, there has been a significant increase in the number of farms of less than 10 acres during the past 30 years. Farms of less than 10 acres comprised less than 6% of our farms in 1925 but now make up 10.1% of all farms, the census figures show.

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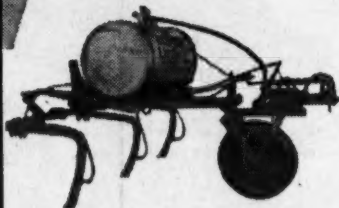
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New Dempster 3-point hitch hydraulic lift Liquijector, equipped with super-accurate, easy to use Dempster Liquijector pump. Will permit use of large variety of 3-point hitch tools in combination with application.



Semi-Mounted Liquijector, with Dempster Liquijector pump or flow control valve—perfectly balanced, highly maneuverable, accurate and economical. Plow, plant, till as you fertilize.



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Quickly mounted Dempster D-100 and D-60 Liquijectors, with flow control valve, for smaller acreage and low cost.



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Dempster Liquijectors Type S for Solutions available with capacities to 300 gallons.

DEMPSTER MILL MFG. CO.

Beatrice, Nebraska

BUG OF THE WEEK

Mr. Dealer--Cut out this page for your bulletin board

Rose Leaf Beetle



How to Identify

The rose leaf beetle is a small, oval-shaped metallic-green beetle, about $\frac{1}{8}$ in. long. They are most numerous in suburban gardens near uncultivated fields. They usually appear late in May or early in June.

Habits of Rose Leaf Beetle

Actually, little is known about this insect, but it is believed that the larvae live in the soil and feed on the roots of various plants beneath the surface. The beetle's scientific name is *Nodonota puncticollis* (Say).

Damage Done by Insect

In addition to feeding on roots in the larval stage, the rose leaf beetle, as an adult, feeds on a number of flowers in addition to roses. It attacks irises and peonies and also on the tender shoots, flowers and foliage of crops such as blackberries, raspberries, strawber-

ries, clover, peaches, pears and plums. Frequently the beetles swarm over flowers and in a very short time riddle them with shot-like holes, thus retarding growth of the plants and making them unfit either for marketing or for esthetic enjoyment.

Control of Beetle

According to literature on the subject, no satisfactory control for the rose leaf beetle is known. Dusting with 5% DDT has been effective, as has the application of pyrethrum. The difficulty, however, lies in actually reaching the bugs with the dust or spray. Many of the pests are working within the buds or flowers and ordinary means of application of insecticide frequently fail to contact the culprits. Some of the literature advises jarring the bugs into a pail of water covered with a film of oil, or by picking the beetle-infested flowers and dropping them into the container. Early morning or at dusk is described as being the best times for such operations.

Illustration of rose leaf beetle furnished Croplife through courtesy of U.S. Department of Agriculture, Washington, D. C.

Previous "Bug of the Week" features have been reprinted in attractive 24-page booklet, priced at 25¢ single copies; reduced rates in quantities. Write Croplife Reprint Dept., Box 67, Minneapolis 1, Minn.

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New England News Notes

By GUY LIVINGSTON
Cropplife Special Correspondent

Regardless of snow and cold, most New England farmers can profitably seed and thin one of their valuable crops from now until April. Their farm woodlot is the crop. Assistance is available in most counties and this is the best season to do the work, according to stabilization and conservation offices.

Time spent doing this work in the right way can pay off in real money, according to Harold F. Thompson, ASC administrator in Massachusetts. County foresters are ready to help individual farmers and the Agricultural Conservation Program will furnish part of the cost. "Purchase orders" are available to help pay professionals to do the work and approved forest improvement practices are explained in handbooks.

"Persons owning a few acres of woodland can get an inspection by Cooperative Extension Service or Country Foresters, who without cost, will tell them whether weeding and thinning will be worth while." Mr. Thompson said.

Specialists Retire

Retirement from the Cooperative Extension Service brought to a close the work of Fayette H. Branch and Wellesley C. Harrington, whose combined careers represent more than 66 years of service to Massachusetts agriculture.

Both men served at extension headquarters in the University of Massachusetts College of Agriculture at Amherst. Mr. Branch, an agricultural economist in farm management, retired after 32 years with the extension service; Mr. Harrington, an agricultural engineer, left after more than 24 years as an extension specialist.

Bill Advances

At the State House in Boston, the Massachusetts Legislative Conservation Committee has reported favorably on a \$2.5 million bond issue bill to develop state forests, parks and recreational facilities.

Soil Conservation

Soil conservation highlighted the programs of the Union Agricultural Meeting held in Worcester, Mass. in January, and certificates of achievement were awarded by L. Roy Hawes, commissioner of agriculture for Massachusetts, to 15 conservation farmers.

Practices established by the farmers include contour cultivation, contour strip cropping, terracing, cover cropping, tree planting, pond construction and drainage.

The 15 farm cooperators, one from each soil conservation district in the state, were:

Mrs. Amy Wing, New Marlboro; Robert B. Godell, Colrain; Ernest Hibbard Farm, Hadley; Harry Goldstein and Sons, Dartmouth; Herbert Holmes, West Bridgewater; Sheriff Donald Tullock, Barnstable; Winthrop Norton, Edgartown; Edward Gardner, Nantucket; Nietupski Bros., Wilbraham; Ronald Gaudreau, New Braintree; Elmer Fitzgerald, Leominster; Stuart A. Baker, Uxbridge; Henry Erikson, West Acton; Edmund M. Bartlett, Salisbury; Arthur and David Schmidt, Wrentham.

Recognition for notable success in agriculture came to George Medeiros, Westport dairyman at the annual Union Agricultural Meeting when he presented the coveted vocational agriculture award known as the "Dirt Farmer Degree" by Mr. Hawes.

Fewer But More Efficient New York Farmers Predicted

ITHACA, N.Y.—Yankee Stadium can accommodate nearly all the commercial farmers in New York State, but by 1965, the farmers may be able to transfer to the Polo Grounds.

This is because of increased efficiency—not by managers Casey Stengel or Bill Rigney—but by the farmers.

So says a Cornell University agricultural economist, Prof. S. W. Warren, who predicts that 10 years from now there will be fewer farmers—but they'll be more efficient, that is, getting more per acre and per man.

The seating capacity of Yankee

Stadium is 67,000 persons and there are about that many commercial farmers in New York State today. The Polo Grounds seats 55,000—the number envisioned by Prof. Warren by 1965.

The economist sees a jump in crop yields on the top 10% farms. He forecasts hay production will go from 3.3 tons in 1954 to 3.7 in 1965, corn silage from 16 to 17 tons, corn for grain from 86 bu. to 90, potatoes from 470 bu. to 500, and apples from 380 bu. to 450 per acre.

The professor noted that farmers have already made "tremendous strides" in efficiency in the last decade. "Pounds of milk sold per man in the upper 10% were only 125,000 in 1946 compared to 175,000 in 1954," he stated.

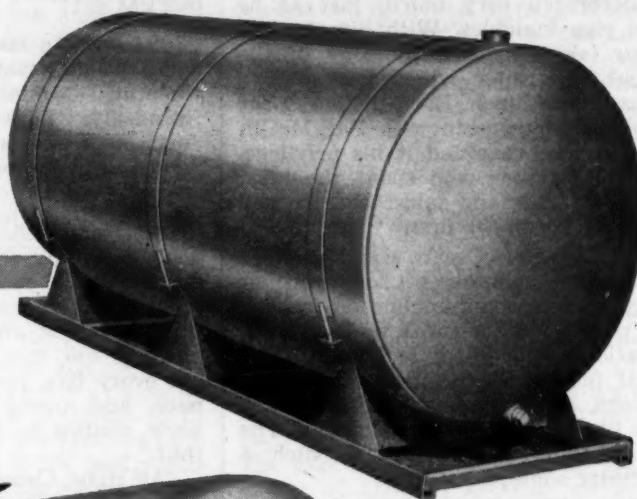
Grassland Farming Handbook Available

NEW YORK—Under the title "The New Grassland-Livestock Handbook," the Joint Committee on Grassland Farming has published a 50-page booklet of information dealing with over a hundred questions that are basic to grassland farming. The contributors number more than 50 specialists from experiment stations, co-operating professional organizations and industries serving agriculture.

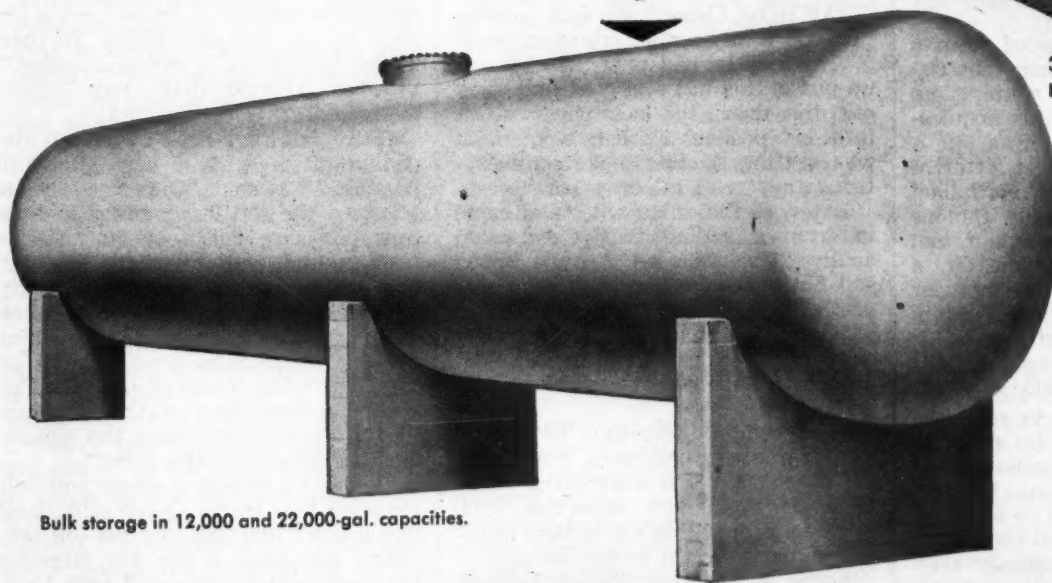
Requests for copies should be directed to the American Petroleum Institute, 50 West 50th St., New York 20, N.Y., whose committee on agriculture, by a grant-in-aid, made the publication possible.

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When Oscar went home to lunch one noon, his nervous, anxious wife had sauerbraten for him, and that warmed his heart, because he liked sauerbraten very much, just as he did pigs' knuckles. With him he had also taken the weekly copy of the local newspaper which had arrived just before lunch. Even though Oscar was in partnership with Pat McGillicuddy, he regarded it his privilege, as the partner who spent the most time in office and salesroom, to read the weekly paper first.

Often when Oscar would read in the news columns of some farmer buying a new automobile or tractor, or putting on a big 25th wedding celebration he would say to Minnie, "Yes, that fellow has the money for those things, and not enough money to pay his two months old fertilizer bill. The world will catch up with such a spender some day."

It could easily be deduced from a frame of mind such as this, that Oscar did not believe in running up debts. To Oscar, and to his acquiescent wife, Minnie, a debt was like a burning sin, like the scarlet letter of shame on the breast of Nathaniel Hawthorne's heroine in his famous book. In Oscar's code of conduct, and in Minnie's, too, for that matter, a bill should always be paid the moment it came in, as though it was a stain on one's honor. And better yet, it would be best not to have any bills at all, if that were possible.

Now Oscar proceeded to read the weekly newspaper page by page as he ate sauerbraten, his mind noting quickly the little human frailties concerning financial matters, foreclosures, fire losses and no insurance, repossessions of automobiles, television sets and furniture.

Suddenly he snorted. "That fool! That crazy fool!"

Minnie came hurrying from the kitchen where she was warming coffee. "Who's a fool, Oscar?"

"Pat, who else?" exclaimed Oscar, his luncheon mood spoiled. "Look at the crazy ad he is running now. You can't even understand it."

Minnie took the proffered paper and glanced at the ad. She saw an ad about three columns wide and 10 inches deep. The headline read, "We Can Tell You How to Stop Losing up to Six Precious Tons of Good Topsoil per Acre Every Year. Come to the Big Meeting at Our Store Next Friday Night. Talks, Movies, Refreshments. Schoenfeld & McGillicuddy."

"Not one word about fertilizer in that ad," snapped Oscar irritably. "Pat is getting worse every day."

"Oscar, why does a farmer lose so much soil per acre every year?" asked Minnie. "That's an awful lot of soil. If it keeps up it could be serious."

"Oh, I suppose Pat means soil conservation," Oscar replied bitterly. "But why doesn't he say so? He just beats around the bush."

"Didn't you know about that big meeting?" asked Minnie.

Oscar snorted. "Of course, I knew

about it. I helped plan it, even if I didn't want to stage it this year to save money. But I thought the meeting was to sell fertilizer. How foolish can Pat get?"

"If I was a farmer and saw that ad I would want to come to that meeting," Minnie ventured absent-mindedly. "I would want to save my soil. I wouldn't want to lose so much of it per acre."

"Minnie!" shouted Oscar at this heresy to his beliefs and wishes. "You don't know anything about farming and fertilizer except what you hear from me. And because I know something about it and about running a business too, you have something to eat every day, and coal for the furnace, and money in the bank, and some clothes to wear. Don't forget that."

"All right, Oscar," she said meekly. "Do you want another cup of coffee?" "No, I have had enough!" He got up put on his hat and coat and went out the door, the newspaper stuck into his pocket. Foolish women. It was getting so they believed everything they read in the paper.

Later, at the office, when Pat came in from a selling trip, Oscar said acidly. "I saw the ad. Are we in the soil business or selling fertilizer at a profit?"

"Oh, didn't you like the ad?" Pat said. "I thought it would make farmers curious so they would want to come."

"They can't understand it," Oscar said, forgetting Minnie's comments. "It doesn't say one word about fertilizer. If you must advertise, Pat, stick to selling. Don't give that newspaper man ads just to fill his paper."

Some of Pat's natural enthusiasm was evaporating under this sarcasm but he sat down and gazed levelly at Oscar. "I've made quite a study of college experiment studies on soil erosion," he said, "and I've found that there is a big relation between cut-

ting soil loss and using more fertilizer."

"Let the college men tell that to the farmer," Oscar said. "Our job is to sell fertilizer on what's in the bag, and collect for it."

"These station experiments show, Oscar, that use of more fertilizer increases growth of crops quickly, makes bigger roots, and thus the crop holds more rainfall," Pat said slowly. "I want to stress that at the meeting next week, and I'm drawing up some charts on it."

"Huh," was Oscar's only comment, and it wasn't favorable.

"Lots of fertilizer early in the spring gets the crops growing fast real early, too," Pat said, "thus lessening the period when the top of the land is bare, and thereby lessening erosion. Then, too, fertilizer in some terrace areas makes grasses grow on less fertile ground which further blocks the runoff of soil and water."

"They heard that story before many times," Oscar snorted.

"Sure, but they need to have it repeated often, with a new angle, if possible," Pat said. "On some land in Missouri the soil loss was up to nine tons per acre per year on unfertilized ground, and only three tons per acre on properly fertilized soil nearby. Fertilizer helps the farmer raise more crops on less land. It also saves the farmer precious, precious tons of soil. That's the theme of the talk I'm going to give them at the meeting. And I have movies from the county agent to illustrate the point."

"I will be listening when you tell them all that stuff," Oscar said, "and if you don't mention that we sell fertilizer and have a per ton discount for early orders placed. I will buck every promotion you put on for the rest of the year."

"Go ahead with this one. Maybe some good will come out of it. Maybe you'll go so far out on a limb on soil conservation that you won't men-

OVER THE COUNTER

(Continued from page 9)

ted conditions, such as size of field, length of rows, soil conditions, etc.

The commercial fertilizing rate suggestion assumes more meaning when compared with costs of using manure. The Iowa college found that it cost \$1.85 per ton to load, haul and spread manure (average length of haul two miles one way.)

The guide for spraying suggests an operating margin of 30%. The College Farm Service cost for spraying 2,4-D (corn or flat work included 2,4-D) was \$2.25 per acre, the suggested range in actual charge being \$2.60 to \$3.15 per acre.

For spraying corn borer (no materials furnished) the cost was 50¢ per acre, the suggested charge being 65¢ to 75¢ per acre. The cost of spraying DDT for fly control in buildings and around the lot, and labor (no ma-

terials) was \$3.50 per hour. The recommended range in price is \$3.60 to \$4.50 per hour.

In all cases, cost included the following items: Depreciation, interest on investment, housing, federal excise taxes, repairs, servicing, fuel and labor. It is necessary to add to the cost a charge for ownership risk and profit—necessary items for the custom operator if he expects to stay in business. The College Farm Service rates, therefore require approximately a 30% increase to give the operator a reasonable profit and to protect him against risks of ownership. Labor was billed at \$1.30 per hour.

It was pointed out that under highly favorable conditions, such as large fields, long rows, good soil, etc., costs would be slightly lower. Likewise, under unfavorable conditions, such as small or irregular fields, long hauls or special handling, costs may be considerably higher.

tion fertilizer at all, ach, and w won't sell a bag of fertilizer. The maybe you will come to your senses.

Oscar went back to his desk and began figuring discounts and rechecking delinquent accounts. Pat looked across the room at Tillie Mason, the plump ulcerish bookkeeper. His anguished look seemed to say "How and why did I ever get tied up with such a partner?"

Better Fertilizer Publicity Cited by Pennsylvania Firm

The Organic Plant Food Co., Grafton town Rd., Lancaster, Pa., owned and operated by Norman B. Brubaker, makes Master Farmer Brand fertilizer. Mr. Brubaker finds that farmers are tending to use more fertilizer and attributes much of the increase toward better fertilizer publicity and advertising. He also credits state department of agriculture promotion with pointing out to farmers what good fertilizer can do to help increase crop yields.

In this part of Pennsylvania, Mr. Brubaker finds that farmers use mostly 5-10-10 for small grains, 3-12-6 for wheat and 10-10-10 for corn. On tobacco many farmers are using 4-8-12.

Potatoes in this area call for 5-10-12 or 3-12-6. The pasture renovation programs call for a 5-10-10, with more farmers than ever before turning toward pasture fertilization.

This firm sells either in bulk or bags, but most of the demand is for the bagged product. Fertilizer produced here in this small plant is sold within an area of about 50 miles.

Mr. Brubaker and staff report that the fall fertilization program is winning more farmers in this area, but has a long ways to go yet to compare with spring volume. The widespread publicity for fall fertilization, however, from many sources, is reaching farmers, Mr. Brubaker states.

John E. Moore Appointed Branch Manager for Calspray

RICHMOND, CAL.—John E. Moore has been appointed to the position of branch manager of the eastern shore branch of Calspray, according to an announcement by Dr. Robert T. Wallace, district manager for the California Spray Chemical Corp. here.

Mr. Moore will headquarter in Salisbury, Md. He has been with the chemical company for the past four years and has served as a research entomologist in North and South Carolina and as a sales representative on the Del-Mar peninsula in Virginia.

Calspray also announces the opening of a new branch office in Sodas N.Y., to serve Wayne and surrounding counties. William A. Rolston has been named branch manager. Mr. Rolston has served the Sodas area for about five years as a fieldman for Ortho chemicals.

Mr. Moore has been an instructor in plant pathology at the University of Maryland before joining Calspray. He earned his bachelor of science degree at the university in 1947 and a master's degree four years later.

Mr. Rolston has attended both Alfred and Cornell universities, and received a degree from the latter in 1950. Born in Cuba he moved to northern New York state when he was a child.

Eugene Datthyn will work under Mr. Rolston as a fieldman. Mr. Datthyn, a Sodas native, was graduated from Cornell in 1942, and has operated his own farm in Wayne county.

Little Things in Merchandising Add Up—On the Cash Register

EDITOR'S NOTE

The following article is the first of three prepared for Croplife by Frank Goodwin, professor of marketing, college of business administration, University of Florida, Gainesville, on various aspects of selling. The first article deals with buying by the retailer and store layout. Subsequent articles will deal with displays, advertising, goodwill and salesmen.

tailer should do the same type of planning.

The retailer wants customers, when they come in for traffic items, to go into the store, pick up one here, one over here, and one over here, so that they will be exposed to a lot of things that they didn't plan to buy. We have learned in retailing how much buying is done on impulse. An impulse item is something that the customer didn't honestly sit down and figure out he should buy, and then buy it. Practically all specialty sales are made to prospects, who, when the salesman called, had not planned to buy that proposition.

Impulse buying is a terrifying part of all buying. My last two automobiles were bought without previous planning to buy. When it gets to buying automobiles on impulse, it's time to analyze how much goods are sold on impulse and here's the best way to analyze:

One of the most stable items we use is food. Some ladies don't make out shopping lists, while some ladies sit down, read all the grocery advertisements in the paper, and make out their shopping lists. Then they go to the grocery store to buy.

Researchers started checking ladies in the grocery stores. They asked the ladies, "Did you have a shopping list?" When one said, "No," they said, "Thank you very much." They stopped all of the ladies who did have a shopping list and asked, "Would you mind if we checked your basket against your shopping list to see how many things you have on the list in your basket?"

As fantastic as it may seem to you, the ladies who go into food stores with shopping lists come out of these food stores with more items in the basket not on the list than they had items on the list. That's how important impulse merchandise is. So, stores know they must get people to walk by their goods and look at them.

Layout does this job for the retailer. It is a very expensive thing, but very profitable. If a store is big, the retailer may hire an expert on layout or on modernizing the store. If it is a small store, the owner sweats it out by himself. Good layout costs time, it costs money and it costs effort. Poor layout costs even more in lost sales. Poor layout prevents impulse buying and impulse buying can mean very profitable selling.

Rodger C. Smith in New Post with Eastern States

SPRINGFIELD, MASS. — Rodger C. Smith has been promoted to head of fertilizer research for Eastern States Farmers Exchange. He came to the firm in 1938 with the department of fertilizer research. Since 1946 he has specialized in studies of high ammoniation, granulation and leaf analysis.



FARM SERVICE DATA Extension Station Reports

Adoption of all recommended soil fertilization and management practices by all of the corn producers in Pennsylvania would cause, in one year, more than three times the increase that has occurred in the last 90 years, according to D. P. Satchell, assistant professor of soil technology at Pennsylvania State University and the increase in income for that year from this single crop to the farmers of Pennsylvania would be roughly equal to five times the annual State appropriation to run the Pennsylvania State University. More important, on a long-term basis, would be the change from soil mining to soil building.

Yields over 100 bu. of shelled corn per acre are commonplace. Results of the 1953 Pennsylvania Crop Improvement Assn. sponsored "1-acre Corn Contest" for vo-ag students showed an average yield of 80 bu. per acre. The 1954 "5-acre Corn Club Contest" sponsored by the Agricultural Extension Service and the PCIA demonstrated that farmers in 41 counties can produce in excess of 75 bu. per acre. Of the 201 farmers having yields checked, 93.5% had yields of 75 bu. or more; 66% had over 100 bu. yields; and 14.5% exceeded the 125 bu. mark.

In the "1-acre Corn Contest" the students record their production practices. A summary of the practices employed to achieve top yields is almost a check list of recommended practices, according to Mr. Satchell.

A summary of practices followed by the top three boys in each of the four maturity areas follows: Each obviously selected land suitable for corn since the average yield was 127 bu. shelled corn per acre. Ten out of 12 plowed down sods. The average pH of 6.4 indicates attention to lime requirement. An average of slightly over one-half pound dry ear weight shows excellent match of plant population (average of 15,600 plants per acre) and fertilizer applied.

Recommended hybrids were used by 11 boys. The moisture content of the grain at harvest was 25.3% proving the hybrids were well adapted. They applied 9 tons of manure, 70 lb. of N, 72 lb. of P₂O₅ and 69 lb. of K₂O per acre to produce this crop.

The fertilizer used per acre would cost about \$21 at present prices. The corn produced would be worth around \$190; leaving \$169 per acre for other costs and profits.

Per acre, the average Pennsylvania farmer adds 9 lb. of N, 26 lb. of P₂O₅ and 15 lb. of K₂O at a cost of about \$4.50. The average yield of 46 bushels per acre would be worth about \$69 leaving \$64.50 for other costs and profit.

Agronomists report that it is profitable to add superphosphate to barnyard manure. One advantage is that the superphosphate gives the manure a better plant food balance. Another advantage is that superphosphate helps the manure hold nitrogen that might otherwise be lost.

O. J. Chapman, University of Wisconsin soils specialist, points out that manure is rather low in phosphate. He estimates that a ton of manure without bedding can average about 10 lb. of nitrogen,

5 lb. of phosphate and 10 lb. of potash. By adding 25 lb. of superphosphate to each ton, the manure's phosphate content can be increased to 10 lb. per ton. The phosphate should be added to the manure before it is spread in the field.

One method is to put the superphosphate in the gutters of the stable or open-run barn at the rate of one pound per cow per day. Bedding is needed to hold the liquids. Straw, shavings or sawdust can be used. Another method is to place the superphosphate in the spreader as the manure goes onto the field. Anywhere from 25 to 50 lb. per load can be used.

Experiments at Rhode Island Agricultural Experiment Station show that on land that has been in potatoes for a number of years with heavy fertilizer applications of the usual grade of 5-10-10 or similar, better results can be obtained with a grade of fertilizer having a higher nitrogen content. This would mean such grades as 8-12-12 or 10-10-10. The experiments indicate that application of 1,500 to 2,000 lb. an acre of such grades probably will furnish all the nutrients that the crop will need.

Neely Turner, head of the department of entomology at the Connecticut Agricultural Experiment Station, recently told Connecticut vegetable growers that spray schedules for the state can be followed with confidence.

He cautioned the growers to read and heed the labels on pesticides. These, he said, are a recital of scientific facts, and are not to be taken lightly. Growers who follow label directions are unlikely to have excessive pesticide residues on their crops.

Growers of so-called minor crops, he said, may need information not shown on the labels, and technical assistance on pesticides for minor crops is available from the Extension Service and Experiment Station.

Fertilized pastures can have a two to three-week head start this spring on fields that were not fertilized, according to Midwest agronomists. The fertilized pastures will be ready for grazing earlier than the unfertilized pastures.

Ralph Krenzin, extension agronomist at Iowa State College, points out however, that grazing too early in the spring may mean less grass during midsummer when farmers need it most. Continuous early grazing can weaken the legume-grass growth. These plants need time to build up depleted root reserves.

Mr. Krenzin advises waiting until the pasture stand is four to six inches high and until the ground is firm so the cattle won't cut into it. He says that at the start, cattle should be left on the pasture only a few hours at a time. The grazing period can be increased gradually during the first week to get the cattle on full pasture feeding.

Fertilized pasture not only produces bigger forage yields, but a larger amount of protein, too. This can help farmers save on the protein concentrates needed for dairy cows, beef cattle or hogs.

The average retailer spends a lot of time and money in buying. If it's a big store, he hires specialists to buy; if he has a little store, the proprietor or manager sweats it out.

I had an opportunity to work at a W. T. Grant Co. store a few years ago and I watched the firm's buyers operate. The information buyers have about the market, the possible trend in prices and the trends in what people will buy, would startle many people. They buy some things by the thousands of gross. Some of the items bought looked like junk to me. I asked one of the buyers, "Do you like this stuff?"

He said, "Heck, no, I don't like it, but I'm not going to consume it. I'm buying for the customers in our stores and our customers like it."

He knows what his customers like. That is the way they buy—what their customers want, not what the buyer wants.

In buying, all merchants are analyzing what can be sold in their community and the right selection to have on hand. They do not want things that will be slow moving and become obsolete on them. They do want the items that people will call for. They try to buy the right amount to keep the right "thickness" of inventory. They don't want too much so that their turnover will be slow and, yet, they want enough so that clerks won't always be making out a "call" or "want" slip because something is out of stock and the stores lose a sale. The art of buying has gotten down to a fine point. It takes time, and it takes effort. It costs money.

Good buying is a big part of good selling. There's an old saying that a thing well bought is half sold. Certainly success in selling depends on knowing what folks will buy.

The retailer must study new products—in publications and in other places—and have them available for his customers. He must also keep records of when he bought and how much was bought so he will know what's selling fast enough to be profitable and what is being handled "just for fun."

Records of what was bought and when it was bought, combined with an inventory at regular intervals, provide valuable information on what to buy and how much to buy in the future. Good buying is planned buying. The retailer can't plan without proper records which tell what has happened in the past and what is happening right now.

Store Layout

Next, the retailer worries about layout. There is a lot of information available on layout. The major problem here is to plan a store to get the maximum traffic through it.

Layout experts are clever. They have found out, for example, that if they let customers alone, three out of four will go into a store, turn counter clockwise, and go around the outside aisles of the store. They don't want customers to do that, so as they enter the store, there's a counter full of impulse merchandise. The only way to turn right is to trip over a bunch of this merchandise. The layout experts realize that in traffic flow, there are places where people will normally stop. These are pause points. There the layout men have some impulse merchandise to pick up. They scatter "traffic" items here, there, and everywhere. Every re-

Better Selling

Richer Sales Fields for Dealers

NEW JERSEY DEALER

(Continued from page 9)

materials is almost as important as knowing the type of material to use on crops. In many instances, the serviceman has shown some farmers how they can use their irrigation systems to spray a combination nutrition fertilizer and insecticide through their pipelines, doing two important jobs at one time.

"Our customers look to us as their source of information for the latest trends in fertilizer and insecticide applications," says Mr. Parkhurst, "and we are constantly bringing them to their attention. Any dealer can keep harping about the quality of the products that he handles and play up price, and farmers are fairly well bored with the subjects. They already know about it. But when we approach them with something new, technical or novel, it arouses their attention and brings them to us."

In one case, Mr. Parkhurst worked out some changes on a duster for blueberries and found that it was a very satisfactory tool in dusting the blueberry crop. He contacted a tool manufacturer and several such farm tools were manufactured. Now they are being manufactured in greater quantity and may have national distribution later on.

Interesting farmers in new products must be a slow-but-sure process, as far as Mr. Parkhurst is concerned. He mentions this with liquid nitrogen in mind. Farmers have talked about it, but few in the area use it. Mr. Parkhurst is trying to get it across by selling it in small quantities to farmers and their wives.

"We feel that by getting the farmer's wife to use a liquid fertilizer on their gardens, lawns and small specialty crops, that we are using the back-door to get the farmer to use it on his main crops," says Mr. Parkhurst. "We are therefore stocking liquid nitrogen in small containers and as soon as it starts getting around, then we'll start playing it up on a much larger scale."

Getting the farmer to buy his own sprayer or dusting equipment is an important part of this dealer's sales program, for once a farmer has this equipment he will use it and this means the application of farm chemicals. Generally, the serviceman will bring a demonstration unit out to the farmer and show him how to use it in applying the proposed materials to the crops. This often leads to the sale of this implement.

The serviceman prepares a route of customers upon whom he constantly calls. He doesn't call as a salesman, but as a help to the farmers in seeing that they have a healthy crop. As a result, he often walks away with an order or the farmer calls one in by phone or makes a personal visit to the store. In any case, it means business for the Parkhurst Farm and Garden Supply Co.

"When it comes down to brass-tacks," says Mr. Parkhurst, "what is it that we as a fertilizer dealer can offer a customer that another dealer can't? Actually nothing but a merchandising technique that is different, needed and worthwhile to the customer. Service after the sale is a tremendous good-will clincher, and constantly standing out in front of the customer as a headquarters for their troubles makes us sought after."

"Farmers like to know that someone is just as much interested in their welfare as he is in making a sale

to them. When they don't see a salesman or a dealer from one season to the next, they don't have any confidence in him regardless of what he is selling and what price he is offering. Contact with the farmer out-of-season as well as in-season, is an important part of a dealer's sales build-up. And we maintain constant contact all year round."

In his attempt to make a head-quarter out of his establishment for customers, Mr. Parkhurst has added several small side-lines to his store that include garden, vegetable and lawn seeds, housewares, hardware and paints. He found that this merchandise helps to attract the women to the store and assists in establishing his business to them. And every time a shopper comes in, he plays up his small containers of liquid nitrogen. This is his "wedge" in being able to go after this business when the season rolls around.

Mr. Parkhurst has recently enlarged and modernized his building so that it is 50 ft. across and 130 ft. deep. Every farmer has a vehicle today and driving around to the local dealer is a part of his job. Parkhurst Farm and Garden Supply is a far cry from the small, wooden floor-ed and under-illuminated farm dealer's store. It is modern in all respects, featuring self-service in home needs and small farm necessities.

"Our establishment is actually a silent salesman for us," says Mr. Parkhurst, "because farmers consider a dealer today, as modern as the business establishment that he maintains. Our regular customers know how modern we are in our sales and service methods, and we make a deep impression on non-customers who at a future date become our customers."

Four or five times during the year, a general mailing is made to 3,200 customers and prospects in southern New Jersey. Periodic ads in county publications keep this dealer's name out front, and his constant contacts round out his policy of consistent customer contact.

Northeastern Mosquito Control Group Elects

WALTHAM, MASS.—New officers and directors for the Northeastern Mosquito Control Assn. were elected at the second annual meeting of the group held at the University of Massachusetts Field Station at Waltham.

Officers are Joseph F. Pannone, state mosquito control supervisor for Rhode Island, Providence, president; Lewis F. Wells, Jr., superintendent of the South Shore Mosquito Control Project, Quincy, vice president; and Robert L. Armstrong, superintendent of the East Middlesex Mosquito Control Project, Cambridge, secretary-treasurer.

Directors are Patrick Tocci, Department of Public Works, Needham, one year; Dr. Frank R. Shaw, entomology department, University of Massachusetts, Amherst, two years; and William J. Maynard, East Coast Aviation, Bedford, three years.

The association will meet at the University of Rhode Island, Kingston, next year. Activities during the coming season include training courses in mosquito control and allied subjects on March 22-23 at the University of Rhode Island, and at the University of Massachusetts on March 26-27. The federal and state departments of public health and departments of entomology will help sponsor the courses.



ON NEW JERSEY PANEL—W. A. Mitcheltree, specialist in soils, New Jersey Agricultural Extension Service, center, moderates a panel discussion on "The New Look in Fertilizers for 1956" at the Farmers Week meeting of the New Jersey State Horticultural Society. Also on the panel were, left to right, Fritz Anspach of the Pennsylvania Salt Manufacturing Company, I. P. Thomas Division, Paulsboro; George H. Serviss, agronomist for the Cooperative G.L.F. Exchange, Inc., Ithaca, N.Y.; Kendall S. Tomlinson, sales supervisor, Nitrogen Division, Allied Chemical and Dye Corp., New York City, and Dr. William J. Hanna, associate professor of soils, Rutgers University.

Fertilizer Industry Spokesmen Address New Jersey Horticultural Group Meeting

TRENTON, N.J. — Fertilizer industry spokesmen brought an audience of fruit and vegetable growers up to date at a meeting of the New Jersey Horticultural Society recently during Farmers Week. They appeared on a panel moderated by Wallace A. Mitcheltree, extension specialist in soils at Rutgers University.

Soluble powders have their place in New Jersey for starter fertilizers or foliar sprays, stated Kendall S. Tomlinson, Northeast sales supervisor for the Nitrogen Division of Allied Chemical & Dye Corporation, New York. He discussed particularly the advantages of urea, which he described as versatile, economical and a "good buy" for New Jersey farmers.

"This appears to be the coming of age of nitrogen," said George H. Serviss, agronomist with the Co-

operative GLF Exchange, Ithaca, N.Y. In his opinion, dry material will continue to have a place, with liquid forms taking up most of the increase in use. He showed slides to illustrate the convenience of using liquid nitrogen.

Fritz Anspach of the I. P. Thomas Division, Pennsylvania Salt Mfg. Co. Paulsboro, cited savings in bags and in labor with the use of complete solutions of nitrogen, phosphorus and potash. He explained some of the chemistry behind the limit of an 8-8 concentration of his company's product. An attempt to dissolve the chemicals in too great quantities results in crystallization, he said.

Dr. William J. Hanna, Rutgers soils scientist, told how granulating and pelleting reduce caking and lessen the dust nuisance.

Du Pont Offers New Fungicide to Halt Disease of Apples

WILMINGTON, DEL. — A new thiram fungicide, "Thylate," for control of apple scab and cedar-apple rust, has been announced by E. I. du Pont de Nemours & Co., Inc. The company's petition for residue tolerance and application for registration of the product have been accepted for review by federal authorities and the official notice of filing has appeared in the "Federal Register."

The product, based on thiram (tetramethyl thiuramdisulfide), has been under test as an apple fungicide in Connecticut for 11 seasons and has been evaluated in trials by investigators in 16 other states. It has also been tested by commercial growers in New Hampshire, Pennsylvania, Virginia, Delaware, Indiana, New York, Massachusetts, West Virginia, Maryland and Michigan. The Food and Drug Administration granted a temporary tolerance for limited grower trials in the 1955 growing season.

The makers state that where thiram has been used as the only fungicide in the spray schedule, there has been no injury to foliage or fruit, even in early-season sprays on sensitive varieties.

Thiram is one of the family of dithiocarbamate fungicides developed by Du Pont. This family includes "Fermate" ferbam fungicide, "Parzate" zineb and nabam fungicides, "Manzate" maneb fungicide, and "Zerlate" ziram fungicide. Thiram has been used commercially as a seed

protectant and turf fungicide for over 10 years. Meanwhile, the University of Connecticut pioneered in evaluating the compound as an apple fungicide, and investigators in other states included it in some of their comparative tests.

In the 1954 and 1955 seasons, trial quantities of an orchard spray formulation were made available to a few leading apple growers in eastern apple areas. Evidence compiled during more than a decade of testing indicates the material has good qualities as an apple fungicide, both in control of rust and scab as well as leaving the fruit with an attractive finish at harvest time.

The company reports that there has been no chemical russetting even with Golden-Delicious apples in orchards where trial amounts of "Thylate" has been sprayed on a commercial basis. The material has been tried successfully on virtually all major varieties of apples, Du Pont says.

Although the only recommendations proposed for 1956 will be for use on apples, thiram has also been studied for control of various diseases on other fruits and certain vegetables.

Subject to registration for commercial use and establishment of residue tolerance, the makers plan to market "Thylate" thiram fungicide in five- and 50-pound bags. Use recommendation for use on apples: one and a half to two pounds per acre, gal. spray applied in a conventional scab control schedule. It can also be applied in concentrate sprays up to eight times normal concentration, company says.



W. W. Wilson
Midwest Rep
For U.S. Potas

NEW YORK—U.S. announced the appointment of ("Woody") Wilson as representative in the Midwest territory for the U.S. Potash & Chemical Corp. He will represent the territory previously covered by John E. Fletcher who has moved to New York as assistant manager.

Mr. Wilson is a graduate of the University of Athens, Ohio, and has spent seven years with the Farm Bureau of Ohio. He was with the U.S. Marine Corps during World War II.

E. John Caruso Named to Potash Division Office in Chicago

WILMINGTON, DEL.—The U.S. Potash & Chemical Corp. has announced the appointment of E. John Caruso as assistant manager of its chemicals division office in Chicago.

Formerly technical manager in the company's St. Louis office, Mr. Caruso was promoted to his newly-created post after serving as regional manager in the Chicago office.

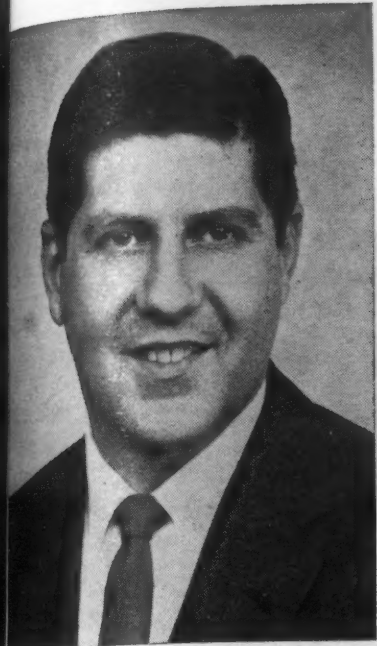
Paul E. Stubbe, technical manager in Dallas, Tex., has been promoted to St. Louis to succeed Mr. Caruso. Mr. Caruso received his B.S. degree in chemistry from the University of Illinois in 1949. He took two years of leave from his business work to attend Cornell University where he received his M.S. degree in 1951. He has been in the St. Louis office since 1952.

Mr. Stubbe, a native of New Jersey, holds a B.S. degree in agriculture from Cornell University. He joined Atlas as a technical representative in 1954 shortly after leaving a 10-year service in the chemical industry. He had been in the Chicago office since last March.

The Dallas area office, for which Mr. Stubbe is a technical representative, is an expansion of the office, for which Mr. Stubbe is a technical representative.

Sur-Gro Liquid Plant Food in Operation

PLATTSBURG, N.Y.—The mixed fertilizer plant of the Plant Food Co. has been put into operation, according to a statement from the company. The plant, which completed last September, has a limited output for the winter. The firm is manufacturing with a capacity of 150 to 200 tons a day. It is built by Fabricated Steel Co., San Leandro, Cal.



W. W. Wilson

W. W. Wilson Named Midwest Representative For U.S. Potash Co.

NEW YORK—U.S. Potash Co. has announced the appointment of W. W. ("Woody") Wilson as its sales representative in the midwest, effective Feb. 6. He will represent the company in the territory previously served by John E. Fletcher who has been moved to New York as assistant sales manager.

Mr. Wilson is a graduate of Ohio University, Athens, Ohio. For the past seven years he has been with the Farm Bureau Cooperative Assn., Columbus, Ohio. During World War II he was with the U.S. Merchant Marine.

E. John Caruso Named to Post in Atlas Chicago Office

WILMINGTON—Atlas Powder Co. has announced the appointment of E. John Caruso as assistant manager of its chemicals division regional sales office in Chicago.

Formerly technical representative in the company's St. Louis, Mo., sales office, Mr. Caruso will serve in the newly-created post as assistant to Howard W. Dellard, manager of the Chicago office.

Paul E. Stubbe, technical representative in Atlas' chemical sales office in Dallas, Tex., has been transferred to St. Louis to succeed Mr. Caruso.

A native of Pittsford, N.Y., Mr. Caruso received his bachelor's degree in chemistry from Ohio University in 1949. He took two years' postgraduate work in business management at Cornell University prior to joining Atlas in 1951. He had been in the St. Louis office since 1954.

Mr. Stubbe, a native of Elizabeth, N.J., holds a bachelor's degree in agriculture from Cornell University. He joined Atlas as a research chemist in 1954 shortly after finishing two years' service in the Air Force. He had been in the company's Dallas office since last March.

The Dallas area will be serviced by an expansion of the Atlas Houston office, for which Latane D. Lamb is technical representative.

Sur-Gro Liquid Plant in Operation

PLATTSBURG, MO.—The liquid mixed fertilizer plant of the Sur-Gro Plant Food Co. here now is in production, according to L. C. Maddox, sales representative. The plant was completed last September, and had only limited output during the fall and winter.

The firm is making 14 analyses, with capacity of the plant at from 150 to 200 tons a day. The plant was built by Fabricated Metals, Inc., San Leandro, Cal.

Power Contract Signed for New Phosphate Operation

SALT LAKE CITY—A contract to furnish power for the half-million dollar phosphate mining and processing plant in Bear Lake County, Idaho, has been signed between Central Farmers Fertilizer Co. and Utah Power & Light Co., E. M. Naughton, president of the power firm, said recently.

The fertilizer company hopes to begin construction of the phosphate plant sometime this spring at Georgetown, near Montpelier. The operation is expected to employ about 200 in year round operations.

Under the contract, the utility proposes to supply 35,000 kilowatts of interruptible electric power for the Georgetown Canyon operation. In addition the contract calls for 2,500 kilowatts of firm electricity.

The contract was signed for Central Farmers by Joseph J. Lanter, president, and G. W. Bunting, secretary.

G. Robert Sido Named To New Monsanto Post

WASHINGTON—G. Robert Sido, Cincinnati, Ohio, has been named Washington technical representative for Monsanto Chemical Co., according to an announcement by Edward W. Gamble, Jr., regional vice president in charge of the company's Washington office.

Mr. Sido, who has been operating supervisor of the Monsanto plant at Port Plastics, Ohio, replaces K. Warren Easley, who is to return to St. Louis. Mr. Easley will be in the development department of the Inorganic Chemicals Division. Both changes will be effective March 1.

In his new assignment in Washington, Mr. Sido will handle technical liaison between Monsanto's divisions and departments and the various government agencies.

Pacific Northwest Meeting May Include Machinery Exhibit

PORTLAND, ORE.—The possibility of incorporating a machinery exhibit and demonstration with the seventh annual regional Pacific Northwest Plant Food Assn. fertilizer conference was recently studied by a planning committee. This conference is scheduled for June 28-30 at the Chinook hotel, Yakima, Wash.

The conference planning committee agreed that if such an exhibit is held, it should be limited to one day, and would probably be scheduled for Saturday, June 30. It will feature field demonstrations of fertilizer applicators, spreaders and dusting equipment.

Famine May Succeed Food Surplus in U.S., Conservationist Warns

BOSTON—Famine may succeed food surpluses in the U.S. within 25 years, according to two conservationists. Soil and water must be saved on an increased scale said Waters S. Davis of League City, Texas, and Marion S. Monk of Batchelor, La.

They spoke at the 10th national convention of the National Association of Soil Conservation Districts at the Hotel Statler. Mr. Davis, treasurer and former president of the association, cited an "explosion of population" and shrinkage of agricultural acreage.

"We lost 500,000 acres a year to erosion and a million acres to industrial, city and highway expansion," he said. Approximately 1,000 farmers and cattle raisers attended the convention.



N. A. Carlsen

Wilson & Geo. Meyer Opens New Company Office in Spokane

SAN FRANCISCO—L. N. West, executive vice president, Wilson & Geo. Meyer & Co., recently announced the opening of a new company office in Spokane.

N. A. "Steve" Carlsen will manage the office, located in the Realty Bldg., 242 Riverside Ave.

The company, western distributors of agricultural and industrial chemicals, opened the new office in response to increasing need for agricultural supplies in eastern Washington, northern Idaho and western Montana.

Before Mr. Carlsen joined the Meyer firm, he was associated with Shelton & Co., Seattle, handling sales of fertilizers, feeds and concentrates. He was also with Balfour-Guthrie & Co., Ltd., Seattle.

Weed Killer Seen as Tool in Cancer Fight

BERKELEY, CAL. — A chemical now used as a weed killer and cotton defoliant may prove to be a tool in cancer research.

The discovery was made by Dr. Werner Heim, Dr. David Appleman and H. T. Pyfrom at the College of Agriculture, University of California at Los Angeles.

They found that weed-killing amino-triazole has the same effects as cancer on catalase, an important but little understood body enzyme occurring in the liver and kidneys and in red cells in the blood.

When the chemical was administered to experimental animals, catalase levels in the liver and kidney decreased. However, blood catalase levels remained normal. This is the same effect as that produced by cancer growing anywhere in the body, the researchers say.

Research experts hope that through the identical reaction produced by the action of both amino-triazole and cancer on catalase, new clues will be given to the biochemistry of cancer. They also hope the relationship will help identify the role of the catalase in the body.

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WORLD REPORT

By **GEORGE E. SWARBRECK**
Croplife Canadian and Overseas Editor

In many countries and territories of the world the demand for fertilizers from foreign suppliers is growing; in others it is diminishing.

Jamaica is an example of a country with a growing demand. There the government is embarking on a farm development program that will depend for its success upon the judicious use of fertilizers. But the farmers are reluctant to buy because they say the prices are too high.

To get around this objection the authorities have thought up a subsidization plan. They plan to ask the British government's Colonial Development and Welfare Organization for a grant equivalent to \$94,500 and with these funds they will cover 75% of the cost of fertilizers supplied to farmers in the next 4½ years.

The hope is that the farmer will have become so accustomed to fertilizer usage that higher prices will not deter him thereafter.

In the last three years of the program it is estimated that 533.2 tons of sulfate of ammonia and of 18% superphosphate, and 184.4 tons of muriate of potash will be needed each year.

These amounts are tiny when compared with the world usage of nitrogen, phosphoric acid and potash totaling 18,756,000 metric tons in 1956, according to a figure published by the Food and Agriculture Organization of the United Nations. But it is such tiny figures that go to make up the massive total.

Self-Suppliers

On the other hand, there are countries that are hoping to reduce their dependence on outside sources of supply. Hitherto, Brazil has imported nearly all fertilizer requirements.

Now a nitro-fertilizer factory is under construction with a scheduled daily output of 375 tons, more than present consumption.

Completion of the project is expected by August of this year. The chief product will be nitrate of ammonia—either pure, granulated or mixed with lime. The factory will use residual gases from an adjacent refinery and the cost has been estimated at \$7 million.

Cuban Imports

Cuba's billion dollar sugar industry is made up of 161 mills. The mills between them spend an average of \$168,250 every year on fertilizers.

Catalogs Required

The International Cooperation Administration, through the Office of Small Business, states that the Vietnamese authorities wish to obtain catalogs, including price lists, for various items which they require to purchase. Included in the list are chemical fertilizers. The catalogs and other relevant information should be addressed to the U.S. Operations Mission to Vietnam, in care of the American Embassy, Saigon, Vietnam.

Control in U.K.

Research workers are making progress in their efforts to control the pests and diseases which afflict the British sugar beet crop. Concurrently, they are looking into the most effective methods for controlling weeds in the sugar beet fields.

As far as the protection of sugar beet from pests is concerned, experiments suggest that a combined mercury - gamma-benzene - hexachloride seed dressing is the best deterrent against soil pests, while increased steckling emergence has been obtained by treating seed with panogen, thiram, or ethyl mercury phosphate.

The most successful pest emergence sprays for weed control have been nitrate of soda and salt. While pre-

emergence weed sprays have been less successful, the most satisfactory has been isopropyl phenyl carbamate (IPC) applied as an aqueous suspension at 4 lb. to the acre and worked into the seedbed before drilling.

U.S. Technical Aid

More than 2,300 skilled technicians are now working abroad as part of the technical cooperation program administered by the International Cooperation Administration. They are operating in 60 of the less developed countries of the world. Many fertilizer experts are included in the corps of advisors.

One of the most recent appointments is that of John A. Roberts who is leaving for two years of service with ICA as an advisor on fertilizers to the Korean government. He served on the American Plant Food Council from 1951 to 1954 and was president of the Pioneer Phosphate Co., Des Moines, Iowa, a company which he built.

Mexican Sulphur

The Mexican sulphur industry is progressing. Expansion plans are in the air as acceptance of the country's product becomes more widespread.

The plant of the Pan American Sulphur Co. in Vera Cruz is to be extended at a cost of \$1.5 million, according to Harry Webb, president. Capacity will be upped from 2,000 tons a day to 3,000 tons, with completion of the project scheduled for next September. It is reported that the reserves of Pan American are in the region of 35 million tons with only a quarter of the dome explored.

New Factory

Fisons, Ltd., the British fertilizer concern, is to build a new plant at Sasolburg, Orange Free State, South Africa. The cost is estimated at a little under \$10 million with completion expected within two years.

The factory will be right alongside the new oil-from-coal factory of Sasol which will provide ammonium sulfate. Phosphate will come from the South African firm of Foskor. Superphosphate production will be between 100,000 to 200,000 tons a year together with 150,000 to 300,000 tons of mixed fertilizers. Sulfuric acid and nitrogen will be produced also. It will be the largest fertilizer production unit in the interior of South Africa.

Tobacco Stocks

WASHINGTON—The U.S. Department of Agriculture has announced that leaf tobacco stocks in the U.S. and Puerto Rico totaled 5,176 million pounds (farm sales weight) as of Jan. 1, 1956, based on the quarterly reports of dealers and manufacturers. This is an increase of 402 million pounds compared with a year earlier. Included in stocks were approximately 1,890 million pounds of the 1955 crop which had been marketed by growers prior to Jan. 1 or approximately 85% of total production.



WEED SOCIETY OFFICERS—Officers of the Weed Society of America which held its charter meeting in New York early in January, are shown above. From left to right, they are, W. C. Jacob, University of Illinois, treasurer-business manager; W. B. Ennis, Jr., Field Crops Research Branch, Agricultural Research Service, U.S. Department of Agriculture and Mississippi State College, president; A. S. Crafts, University of California, vice president and W. C. Shaw, Field Crops Research Branch, Agricultural Research Service, USDA, Beltsville, Md., secretary. Stories of the meeting appear on page 1 of the Jan. 9 issue of Croplife and page 1 of the Jan. 16 issue.



EMPLOYEE AWARDS—Pictured above are employees of Chicago Steel Tank Co. who received 10 year service awards from D. D. Cleghorn, general manager, at the company's annual award banquet. From left to right are George Landau, Benjamin Frost, Benjamin Baschan, Paul Wishman, Mr. Cleghorn, Anthony Pier, Harold Wallace, Henry Jackisch, Bernard Mulligan and Robert Shust. Awards were presented at the banquet to 35 employees. The service award for the longest time of employment went to John Susal—47 years. Receiving awards for 30 years service were Edward Wendt and Ernest Woeltje. William Paslaski and William Van Arsdale received 25 year service awards. Chicago Steel Tank Co. is a division of U.S. Industries, Inc.



ATTRACTIVE MERCHANDISING—Miss Margaret Devereaux, chosen as "Miss Michigan," presides over a booth at the recent Michigan Horticultural Show, Grand Rapids. She invited passing guests to figure how many dollar bills are in the globe at left, representing the amount of money that could be saved by application of Crag Glyodin on 50 acres of apples under Michigan conditions. Miss Devereaux is shown above watching an apple grower enter his estimate of the amount. Of 556 persons entering estimates, two figured the exact amount, \$660. Eight others guessed within \$9 of the correct amount. Each of these ten persons were presented a Dynel blanket as a reward. The same type of contest was held subsequently at horticultural shows in Virginia, New York and Pennsylvania. In each instance a beauty queen presided at the Crag booth and a local dealer helped contestants in making their computations.

Gloomi

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Gloomicides

Two city fellows who worked with each other every day decided to go to the North woods for their vacation and live like woodsmen.

Before the vacation rolled around, they read all the ads and bought all the things they thought they'd need. Finally, they got up among the big trees in real wild country.

Joe was so eager to try wildlife he unpacked his gun and told Bill to get the fire ready, he was going out to shoot a bear.

He raised his rifle and shot. When the smoke cleared, the bear was rushing toward him. Joe dropped his gun and ran. He ran through the front door and out the back—and as he went through the living room he yelled to Bill, "Okay, pal, you skin this one and I'll go for another."

★

Two scientists were discussing the future of nuclear fission. One was pessimistic and predicted a cosmic tragedy within 10 years. The other said he would give odds of 100 to 1 that no such thing would happen.

"Those are long odds," said his colleague. "What makes you so certain?"

"I don't have to be certain. I only know that I can collect my bet and you can't."

★

Mr. Newlywed: "Is the steak ready now, dear?"

Mrs. Newlywed: "I'm sorry that I've taken so long, Frank, but it looked hopeless grilled, and it doesn't look much better fried; but if you will be patient a little longer, I'll see what boiling does to it."

★

A woman had advertised for a maid and was interviewing a likely applicant. They had agreed upon the afternoons and evenings off when the girl suddenly asked, "Do you do your own stretchin'?" The prospective employer was puzzled.

"Stretchin'," repeated the girl. "Do I put all the food on the table and you stretch for it, or do I have to keep shufflin' it around?"

★

Never kick a man when he's down . . . unless you're a professional wrestler.

★

One humiliating thing about science is that it is gradually filling our homes with appliances smarter than we are.

★

When you're average, you're as close to the bottom as you are to the top.

★

A gang of country roadmen were way out in the country to repair a road when they discovered they had left their shovels back in town. They phoned their foreman back in town about the trouble.

He replied: "I'll send the shovels out right away by truck. Lean on each other until they get there."

★

A writer added this note to his manuscript: "The characters in this story are purely fictional and bear no resemblance to any person living or dead."

It came back with the notation: "That's what's wrong with it."

★

Isn't there any perfume on the market with a name that would appeal to a nice gal?

★

Pipe smokers are supposed to be more contented than cigarette smokers. Well, for one thing, they're not continually being confused and upset by conflicting and exaggerated advertising claims.

Cooperative Starts Work on Liquid Fertilizer Converter

ONTARIO, ORE.—Oris Dearborn, Pacific Supply Cooperative manager, Ontario, Ore., has announced that work on a \$50,000 liquid fertilizer converter plant is now under way there.

The converter will be capable of converting anhydrous ammonia to aqua ammonia at the rate of a tank car every five hours, he said. It is also designed to make 8-24-0 ammonium phosphate liquid fertilizer. This is the only converter of its type in the northwest.

The converter will be located in an industrial section west of the railroad tracks about three blocks south of the co-op's present seed plant. The area has been graded and the concrete bases poured for the double bank converter and three 30,000 gallon storage tanks.

Liquid fertilizer will be hauled by tank trucks to storage points in co-operatives in Ontario, Weiser, Vale, Payette, Emmett and New Plymouth, Ore. Storage points at other communities of the valley are under consideration.

The liquid fertilizer will be applied to the soil through new light draft applicators, Mr. Dearborn reports. The operation of the plant will be under the direct supervision of Don Fletcher, who has been assigned to handle the fertilizer and farm chemicals program for the co-op this year.

Cotton Production Slides Available

MEMPHIS—The National Cotton Council recently announced that it has available sets of 2 by 2 color slides on cotton production and marketing. For each set a script has been prepared which explains each slide and some related information on the topic.

The slides were developed primarily to help educational workers in agriculture throughout the cotton producing states in their programs of cotton education with the farmers, but the service is available to all others interested.

The slides are available at a charge of 25¢ each through the Division of Production and Marketing, National Cotton Council, P.O. Box 9905, Memphis 12, Tenn.

The topics for which sets are available are cotton fertilization, 23 slides; chemical weed control in cotton, 23 slides; cotton diseases, 23 slides; cotton insect identification, 29 slides; chemical defoliation of cotton, 21 slides; cotton harvesting and handling, 34 slides, and cotton mill operation, 52 slides.

Edward E. Ivy Named Entomologist for Michigan Chemical

ST. LOUIS, MICH.—Michigan Chemical Corp. has announced the appointment of Dr. Edward E. Ivy as technical service entomologist in the company's Agricultural Sales Division. He will concentrate on methyl bromide and DDT programs in the southwest, working out of College Station, Texas.

Dr. Ivy was formerly in charge of the U.S. Department of Agriculture insecticide screening laboratory at College Station, Texas, and has conducted research on formulation and testing of agricultural chemicals for the past 15 years.

He received his B.S. from Oklahoma A&M College in 1934 and his Ph.D. in entomology from Texas A&M College in 1951.

STEM BLIGHT

STATE COLLEGE, N.M. — Peanut yields in New Mexico in 1955 were about 15% lower than those in 1954 because of stem blight.



Massey K. McConnell



William M. Hemeter

Commercial Solvents Expands Southern Sales Organization

NEW YORK—Commercial Solvents Corp. is expanding its marketing and distribution organization for agricultural chemicals in the South, according to Clyde T. Marshall, general manager of the company's Agricultural Chemicals Department.

Massey K. McConnell has been named southern district sales manager with headquarters at CSC's Sterlington, La. plant where CSC produces granular ammonium nitrate, aqua ammonia, nitrogen solutions and anhydrous ammonia.

Mr. McConnell has been with CSC since August, 1954, as a sales representative for ammonium nitrate in the South. He is a native of Mangham, La., a graduate of Louisiana

State University and has spent the past 15 years of his career in agriculture.

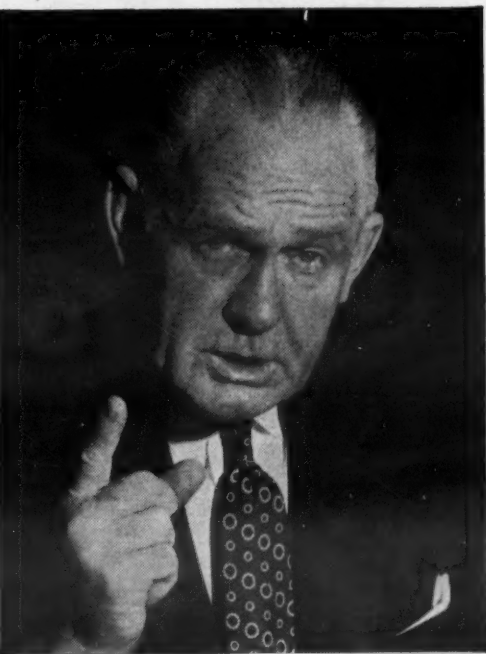
Mr. Marshall also announced the appointment of William M. Hemeter to the CSC southern district sales organization. Mr. Hemeter's home is in Hattiesburg, Miss., where for the past 20 years, he has been engaged in fertilizer production and sales. Mr. Hemeter is an Army veteran with service in the European and Asiatic-Pacific theatres, and is a member of the American Society of Agronomy.

The Southern District includes Arkansas, Louisiana, Mississippi, western Tennessee, Texas, and Oklahoma, Mr. Marshall said.

HOPPER CONTROL PAYS

It is estimated each dollar spent for grasshopper control in recent years saved more than 38 dollars in crops and grazing.

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toxicants
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enough!



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FARM LEGISLATION

(Continued from page 1)

servation reserve. The Acreage Reserve Program (ARP) would take out of production of cotton, wheat, rice and corn, additional acreage beyond the allotments assigned.

For this cooperation a producer would be compensated by Commodity Credit Corp. through negotiable certificates issued to him. These would represent the normal crop yield for the additional land removed from production multiplied by a cash figure.

At closed sessions between U.S. Department of Agriculture officials and the Senate committee it was explained to the senators that the USDA field staff is studying the cash payment per unit which may be necessary to encourage farmer cooperation in the ARP.

However, USDA submitted a tentative estimate that the cash payment per farm crop unit probably would be about 50% of the support price for each crop. There has been some talk that the cash payment may have to go as high as 70% of the support rate, but it is understood that no one at top policy level has been convinced on that higher figure.

USDA hopes that further reduction in allotted acres through this incentive will cut back the 1956 crops of wheat by 12 to 15 million additional acres; cotton by 3 to 5 million; corn 4 to 6 million and rice by 300,000. Tobacco was added to the soil bank ARP phase in the Senate committee, and no information is available as to

the level of certificate value which USDA might contemplate.

Commodity Stabilization Service officials are not hopeful that they will meet with much success in reducing the corn crop further from its 15% cut to 43,280,543 acres for the next crop. In fact, some USDA officials express doubt that acreage allotment compliance can remain at recent levels in face of this sharp reduction.

USDA had been hopeful that Congress might remove corn from the basic commodity group and drop acreage allotments for the crop but at the same time make it eligible for soil bank certificates where land was voluntarily withdrawn from production. The Senate committee declined to accept this proposal.

Another factor outside the pending Senate farm bill which colors the corn production outlook is the reduction in the level of parity price support for that crop to 81% of the Jan. 15, 1956 parity price or on a national average basis of \$1.40 bu. in the commercial corn area.

With these several conflicts and the uncertainty over final congressional action, one needs a good angel in the occult world to guide him in any plans for the 1956 corn crop at this time.

Economic analysts in viewing the proposed levels of value for the ARP certificates say that the level for cotton should result in good participation by cotton farmers. They say, however, that the certificate value for wheat in the soft red

wheat states is unlikely to effect any wide cooperation by farmers in those states.

USDA officials are hopeful that the Congress will adopt the soil bank plan. This is not seen as a controversial item in Congress since it has wide bi-partisan backing.

At this time—and with final congressional action uncertain as to timing—it may be reasonably suspected that the soil bank will get off to a slow start this year notwithstanding the urge for political purposes to put cash into the farmers' pocketbooks this vital election year.

The Senate committee was not content with its approval of the soil bank ARP plan and the conservation reserve phase. It also went merrily on its way to restore rigid high price supports for the basic commodities for the 1956-57 crops—wheat, corn, cotton, rice (unless a two-price plan is adopted for this crop), peanuts and tobacco.

President Concerned

This provision of the measure evoked an exchange of correspondence between the White House and Sen. George D. Aiken, (R., Vt.). The President told the Vermont farm leader that he was gravely "concerned" over this feature of the bill and dubbed it as an item which would "nullify the great benefits the soil bank can bring."

In interpreting that comment Sen. Aiken saw in it a veto, an interpretation subsequently endorsed by Ezra Taft Benson, secretary of agriculture, who has on several occasions since indicated a White House veto of any bill restoring the rigid high levels of support.

The high price support group of the Senate committee was not content to stop at a return of the rigid supports at high levels. It also voted to return the farm legislation to the old parity concept which would, if made effective, sharply increase the parity price of the basic commodities.

Trade sources here see the current farm bill situation as unfavorable for the plant food industry. They report that farmers are delaying their decisions on acreage as well as crops they intend to plant, and as a consequence are withholding commitments to buy necessary plant nutrients.

While this uncertain condition confounds production and sales planning by the chemical companies, there is a solid note of optimism within field sales forces and among distributors, formulators and dealers. These field contacts with the farm consumers say that the farmer is being educated to the real value of plant foods as a means of reducing per unit production costs of crops and, ultimately when he sees which way the government cat will jump, will then place his orders.

This condition will put a distribution squeeze on the chemical industry.

The conservation reserve aspect of the Senate bill follows the pattern previously discussed. It aims at a reduction of 25 million acres from land which is generally unsuited for field crop production and would return it to permanent grass or cover crops and timber. To stimulate this proposal the Senate bill adds an additional \$350 million to the present Agricultural Conservation Program each year.

This aspect of the ACP would be undertaken through contracts with cooperating farmers for a five year period 1956-60. Projects would be completed not later than 1969, except for tree cover crops which would be completed by 1974. Under the Conservation Reserve Program harvest of crops taken into this domain would not be permitted except in the case of timber.

The Acreage Reserve Program certificates available under its part of the soil bank would be redeemable in kind, which raises some

fascinating possibilities for the farmer and the fertilizer industry.

In recent years on barter contracts some fertilizer companies have accepted government wheat in exchange for deliveries of fertilizer to foreign nations and in turn have assigned wheat to grain exporters for sale. Presumably such exchanges between a fertilizer company principal and grain exporter have been on a cash basis.

It is now wondered if the negotiable certificates for the soil bank ARP plan may not become an instrument whereby foreign sales of fertilizer might be financed through accumulation of these documents.

Since there have been no ground rules set up for the transfer of certificates or disposition of payment received in kind it may be idle to speculate at this time. However, great interest in the certificates indicates that there may be some considerable speculation by the export trade to obtain certificates from the farmer for possible redemption call on CCC for government grain.

Another aspect might well be the accumulation of certificates by fertilizer dealers who may wish to stimulate sales to the farmer without calling on him for out of pocket cash disbursement and hold the certificates to maturity, thereby earning 3 1/2%. USDA has already said the certificates will be negotiable and interest bearing. Their maturity is tentatively contemplated, it is believed, on about the same basis as the current loan programs for crops.

This idea is new and untested, but an exploration of it may produce some pay dirt in the field of sales.

In the case of wheat in the return of rigid high price supports, the Senate bill fixes 90% of support only for wheat of milling grade and establishes area committees to determine what such wheat varieties may be. It also excludes, upon enactment, such wheat varieties which last year USDA announced as subject to loss discounts upon maturity of the 1956 crop loan program.

Responsible agronomists tell CROPLIFE that this provision will only mean that all wheat farmers will abandon the allegedly undesirable milling varieties of wheat and that virtually all wheat will be eligible for 90% parity support.

Cotton Supports

In the case of cotton the Senate bill amends a price support provision for this crop which previously fixed the base grade for price support computation at the 3/8 inch middling staple. This means, according to trade experts, that the support price for the national average staple grade 15/16 will be reduced by 2.6¢ lb.

Although this bill received a 12-1 favorable vote reporting it to the Senate and slated for debate starting Feb. 20, it fails to reflect some sharp dissatisfactions within the committee itself.

The strong bi-partisan team, long backers of the flexible price support program—Sen. Aiken and Sen. Clinton P. Anderson (D., N.M.)—believe they have the votes to kill the high price support proposal on the Senate floor. However, that would not necessarily mean its end since the House is strongly and adamantly in favor of high supports.

When and if the bill passes the Senate and goes into a conference between the Senate and House, it is feared that the Senate committee probably packed with high rigid support advocates, may accept an adamant House committee stand and turn a report favoring high supports.

However, even if the high price support bill gets through Congress, a presidential veto likely awaits it.

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FERTILIZER REPORT

(Continued from page 1)

therefore, will probably parallel that of ammonia.

Producers' stocks of these materials, including ammonia, showed a somewhat greater accumulation during the last half of 1955 than they did in the previous year, which emphasizes further the lag in summer production.

Production of byproduct ammonium sulfate from coke ovens underwent relatively little change during the two halves of 1955. Producers' inventories, however, were approximately 50% higher near the end of the year than they were in 1954. The rate of output is expected to continue during 1956 as the coke plants maintain their heavy activity to supply the steel industry with coke.

A factor that may bring about a gradual decline in production of coke ammonium sulfate is the reported interest of a number of operators in using phosphoric acid instead of sulfuric acid to recover ammonia from the gas, thus obtaining ammonium phosphate. However, it is not expected that there will be enough conversions to have any marked influence on output of ammonium sulfate in 1956.

Exports of nitrogenous fertilizers were substantially higher in 1955 than they were in the preceding year with ammonium sulfate accounting for much of the increase. Foreign aid programs have contributed markedly to the export demand for fertilizers and will probably continue to be of considerable significance in 1956.

Imports of nitrogenous materials have been on the decline since 1953, primarily because of smaller quantities from European countries during the last 2 years. The 1955 imports totaled approximately 350,000 tons N content, consisting largely of ammonium sulfate, ammonium nitrate, ammonium phosphates, and calcium cyanamide from Canada, and sodium nitrate from Chile. From 100,000 to 300,000 tons N from these areas are to be expected in 1956, which approximately 60% probably will be imported during the first months. A further decline of imports from Europe in 1956 is probable.

The trends in production, disposition and stocks of superphosphates appear to be following the customary pattern during the current fertilizer year. Except for possible minor fluctuations from month to month, production and disposition probably will continue upward through April. During the first 4 months (July-October) of the 1955-56 fertilizer year, output of normal superphosphate was 3.5% lower than in the corresponding period of 1954-55, although both concentrated and enriched superphosphates showed increases of 5 and 14%, respectively.

It is anticipated that production of the higher analysis superphosphates will continue into 1956 ahead of last year's rate. Whether normal superphosphate output will reverse its decline will depend largely on the overall demand for phosphatic fertilizers.

The Department of Agriculture forecasts that consumption of phosphatic fertilizers during 1955-56 will remain essentially the same as it was during 1954-55. If this proves correct, supplies of the higher analysis superphosphates and miscellaneous phosphatic materials (ammonium phosphates, nitraphosphates, etc.) increase as expected, it appears that production and use of normal superphosphate will decline further in 1956.

The production by the Tennessee Valley Authority of triple superphosphate and other fertilizers from phos-

phorus was down in 1955 compared with the preceding year. However, increasing quantities of furnace-process phosphoric acid from commercial producers moved into fertilizer use, primarily for enriching superphosphates and for making soluble or liquid fertilizers. This upward trend is expected to extend into 1956.

IRRIGATION ASSEMBLY PLANT

LUBBOCK, TEXAS — A new irrigation assembly plant and warehouse of the Western Fertilizer Division of Olin Mathieson Chemical Corp. has been located in Lubbock, according to an announcement from Sam Cottrel, director of operations. Mr. Cottrel said that Lubbock was in the center of an area producing a million bales of cotton yearly, and the new plant will enable the company to give improved service to irrigation farmers of the High Plains.

Fertilization of Range Boosts Meat Production, Report Says

SAN FRANCISCO — Fertilization of cattle ranges in California will increase meat production substantially, according to a report issued recently by the Agricultural Extension Service of the University of California.

A 32-page booklet discussing the effectiveness of chemical fertilizers and how to use them has just been completed by W. E. Martin and L. J. Berry of the university, working in conjunction with farm advisers in nine northern California counties. "Fertilized Range Can Pay Dividends" is the title of the report, which compiles the results of ten field tests comprising the second year's program on range fertilization.

The report discusses such problems as where fertilizers will help, two methods of using fertilizers on the range, how fertilizers produce forage grass during the winter months when grass usually will not grow. Included

CROPLIFE, February 20, 1956—21

is a report of the second season's results of the university's fertilizer tests on annual grasses. Animal weight gains are used to measure the results.

Each of the ten tests are described, and the results tabulated. Significant weight gains of animals grazing on fertilized ranges have been recorded in every instance over animals feeding on unfertilized grass land.

Tobacco Research

WASHINGTON — High-priority needs for expanded research on interrelationships between cultural practices and the chemical and physical properties of the tobacco plant; basic research on quality factors such as burn, aroma and flavor and expanded studies on the control of insects that infest stored tobacco and its products were considered by the U.S. Department of Agriculture's Tobacco Research and Marketing Advisory Committee at its recent annual meeting in Washington.

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A WEEKLY NEWSPAPER FOR THE FARM CHEMICAL INDUSTRY

The regional circulation of this issue is concentrated in the Northeastern states.

INDUSTRY TELLS ICC . . .

7% Increase in Freight Rates Unjustified

While many industries are affected by the proposed 7% increase in freight rates charged by rail carriers, the position of the fertilizer industry is particularly vulnerable. With a margin of profit already too narrow and one of the most formidable items of expense being the cost of transportation, the fertilizer trade will find itself faced with an "insurmountable hardship" if it is forced to dig down deeper to meet more costly freight costs.

The industry has not been silent on this proposition. Spokesmen representing both the National Plant Food Institute and individual companies in the trade have made their voices heard in protest against the 7% increase which would become effective on Feb. 25.

These protests are being made against the general increases proposed by Tariff of Increased Rates and Charges, X-196, issued Dec. 30, 1955, insofar as these increases would apply to the existing rates on fertilizers and fertilizer materials. The increase is to become effective on Feb. 25.

The NPFI says that the railroads have failed to meet the burden of proof that an increase of 7% in their rates is entirely necessary and justified.

"This burden of establishing the lawfulness of the proposed increase is not met merely by a showing that some increase is necessary," it was pointed out by the NPFI's attorney, John D. Conner. Instead, he asserted, the statements must go further and show that the entire increase of 7% is required. Otherwise, Mr. Conner declared, the Interstate Commerce Commission must suspend the effective date of the rates pending a complete investigation into the lawfulness of the increase.

As applied to the rates on fertilizers and fertilizer materials, including phosphate rock and potash, the full proposed 7% increase would result in unreasonable rates, even if the ICC should find that a general increase in the rate level has been justified by the railroads, it was emphasized. And therein seems to be the crux of the matter.

It seems difficult to follow the reasoning of the railroads in their recent price gymnastics. First, we see them some time ago, giving voluntary reductions in freight rates in an effort to recapture tonnage lost to trucks because of a prior rate increase. Would it not seem logical that an increase in rates just now would result in a further diversion of fertilizers and fertilizer materials to other forms of transportation? Certainly, this would nullify the carriers' recent efforts to get the fertilizer tonnage back on the right tracks, as a matter of speaking.

Could increased freight rates be merely added to the price of fertilizer materials and thus passed onto the farmers? If the industry can't absorb an added burden of this sort, then the only alternative would be to make the consumer pay more per ton or per bag of fertilizer.

If ever there was a wrong time to attempt adding extra charges to anything a farmer buys, it is now. The decline in farm income while perhaps not as drastic as is often pictured, has been drummed into the consciousness of the farmer to the extent that even if he is not actually hard pressed for operating capital, he is made to believe he is. The result is the same so far as it concerns sales resistance to any item that has been upped in price even a small amount.

Paul T. Truitt, executive vice president of the National Plant Food Institute, Wash-

ington, D.C., stressed this angle in his comments before the ICC recently. He asserted that the 7% increase in freight rates would "impose an insurmountable hardship on farmers and the fertilizer industry," because neither the industry nor the farmer can afford to absorb the cost of added charges for freight.

"Freight rates now constitute a disproportionately high share of the total cost of fertilizer and this at a time when farm income is near disastrously low levels. Any increase in the cost of agricultural production would only add further to the serious farm problem that faces the nation," he declared.

Further testimony on behalf of the fertilizer industry was presented to the ICC by Robert T. Smith, traffic director of the Davison Chemical Co., division of W. R. Grace Co. He reminded the ICC that it has long recognized that fertilizers and fertilizer materials should receive special consideration in freight rate proceedings. These are low-cost commodities moving in bulk for comparatively long hauls, requiring no special treatment or services, and are vital to the agricultural economy of the country, he emphasized.

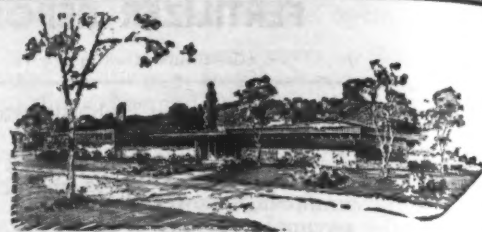
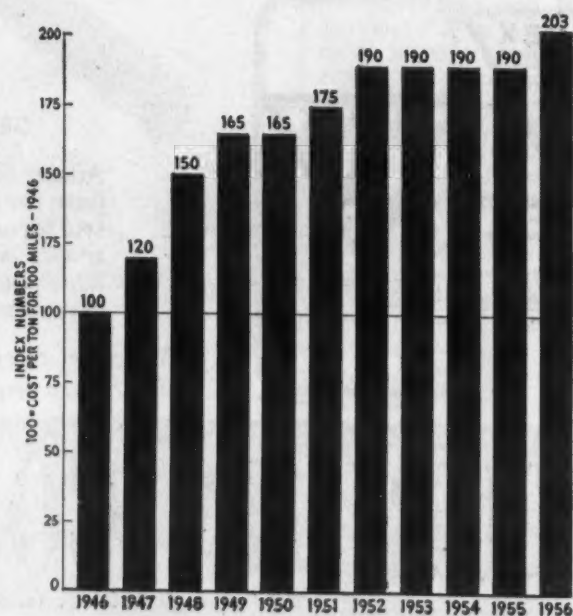
His testimony showed that when freight rates were increased in 1948, the railroads' revenues from fertilizer dropped sharply the following year and continued the downward trend, despite a steadily increasing tonnage of fertilizer materials being consumed in the U.S. It is axiomatic that as rates increase, more and more fertilizer traffic is diverted from the railroads.

Mr. Smith emphasized that the fertilizer industry has been able to provide relatively low-cost materials to the farm since 1946. "In spite of sharply increased freight rates and steady increases in the gross national product, fertilizer prices have been maintained relatively stable since the 1946-48 period of adjustment in our economy," he said.

"The trend in fertilizer prices since 1953 has been downward along with the decline in net farm income. However, since the greatest single cost in delivered fertilizer is the freight costs, based upon the accumulated increases, on both raw materials

(Continued on page 23)

Trends in Freight Costs for Fertilizer
Intrateritorial Shipments—One Ton Over 100 Miles
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CROPLIFE is a controlled circulation journal published weekly. Weekly distribution of each issue is made to the fertilizer manufacturers, pesticide formulators and basic chemical manufacturers. In addition, the dealer-distributor-farm adviser segment of the agricultural chemical industry is covered on a regional (crop-area) basis with a mailing schedule which covers consecutively, one each week, four geographic regions (Northeast, South, Midwest and West) of the U.S. with one of four regional dealer issues. To those not eligible for this controlled distribution Croplife subscription rate is \$5 for one year (\$8 a year outside the U.S.). Single copy price, 25¢.

LAWRENCE A. LONG

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DONALD NETH

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Clemson, S.C., Dr
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MEETING MEMOS

Feb. 20-21 — Southwestern Branch, Entomological Society of America, Hotel Texas, Fort Worth, Texas.
Feb. 22-24 — Fifth Annual Ohio-Indiana Agricultural Aviation Conference, Ohio Union, Ohio State University, Columbus.
Feb. 22-24 — Alabama Pest Control Conference; Alabama Polytechnic Institute, Auburn, Ala.
Feb. 22-24 — Midwest Chapter, National Shade Tree Conference; LaSalle Hotel, Chicago; Noel B. Wynong, Cook County Forest Preserve, River Forest, Ill., secretary.
Feb. 23-25 — District Pest Control Meeting, Town House Hotel, Kansas City, Kansas, sponsored by State Pest Control Associations of Kansas, Iowa, Nebraska and Missouri and National Pest Control Assn.
Feb. 28-29 — Fifth Annual Pesticide Chemicals School, Clemson House, Clemson, S.C., Dr. J. H. Cochran, Dept. of Entomology and Zoology,

Clemson College, Clemson, S.C.
March 1-2 — Potomac States Division, American Phytopathological Society, Plant Industry Station, Beltsville, Md.
March 6-7 — Fifth Annual Western Cotton Production Conference, Fresno Hacienda, Fresno, Cal.
March 14-18 — National Agricultural Chemicals Assn., Spring Meeting; Hollywood Beach Hotel, Hollywood, Fla.; Lea S. Hitchner, NAO executive secretary, 1145 19th St. N.W., Washington 6, D.C.
March 28-30 — North Central States Branch, Entomological Society of America, Purdue University Memorial Union, Lafayette, Ind.
April 10-12 — Council for Agricultural and Chemurgic Research, 21st Annual Conference; Congress Hotel, Chicago; Sec., John W. Ticknor, Council for Agricultural and Chemurgic Research, 350 Fifth Ave., New York 1, N.Y.
April 16-17 — Fourth Annual California Fertilizer Conference, Citrus Experiment Station, University of California, Riverside. Sidney H. Bierly, secretary, 457 Huntington Drive, San Marino 9, Cal.
May 16-18 — Synthetic Organic Chemical Manufacturers Assn., Annual Outing, Skytop, Pa.
May 20-22 — 42nd Mid-year Meeting, Chemical Specialties Manufacturers Assn., Drake Hotel, Chicago; H. W. Hamilton, secretary, 50 E. 41st St., New York 17.
June 10-13 — National Plant Food Institute, Annual Convention, the Greenbrier, White Sulphur Springs, W. Va.
June 28-30 — Association of Southern Feed & Fertilizer Control Officials, 14th Annual Convention, Hotel Roanoke, Roanoke, Va.; Bruce Poundstone, Kentucky Agricultural Experiment Station, Lexington, Ky., Secretary-Treasurer.
June 28-30 — Seventh Regional Fertilizer Conference of the Pacific Northwest, Chinook Hotel, Yakima, Wash.
July 12 — South Carolina Fertilizer Meeting, Tour of Edisto Experiment Station, Blackville, S.C.
July 19-20 — Southwestern Fertilizer Conference and Grade Hearing, Buccaneer Hotel, Galveston, Texas.
July 25-27 — Northwest Association of Horticulturists, Entomologists and Plant Pathologists Conference, Northwest Washington Experiment Station, Mount Vernon, Wash.
Aug. 17-25 — Tenth International Congress of Entomology, McGill University and University of Montreal, Montreal, Canada, J. A. Downes, Science Service Bldg., Carling Ave., Ottawa, Ontario, Canada, Congress Secretary.

Classified Ads

Classified advertisements accepted until Tuesday each week for the issue of the following Monday.

Rates: 15¢ per word; minimum charge \$2.25. Situations wanted, 10¢ a word; \$1.50 minimum. Count six words of signature, whether for direct reply or keyed care this office. If advertisement is keyed, rate of this office, 20¢ per insertion additional charged for forwarding replies. Classified advertising rate not available for commercial advertising. Advertisements of new machinery, products and services accepted for insertion at minimum rate of \$9 per column inch. All Want Ads cash with order.

MACHINERY FOR SALE

FOR SALE

Used Fertilizer Machinery
Shreveport Fertilizer Works
P. O. Box 1, Shreveport, La.
Detailed List Furnished on Request. Delivery Immediately.
Shreveport Fertilizer Works
P. O. Box 1
Shreveport, Louisiana

HELP WANTED

POSITION OPEN FOR YOUNG MAN WITH initiative and responsibility with a major West Coast manufacturer of pesticides for formulation development, field testing and service, contacts with public research men, label preparation, etc. Requires basic training in entomology and chemistry. Send personal data, including photograph, as well as complete information as to education, training, experience, etc. Ad No. 1436, Croplife, Box 67, Minneapolis 1, Minn.

FERTILIZER MATERIALS SALESMAN

We are seeking a man with experience in the fertilizer or agricultural field with proven sales ability in these fields. Experience should be in the Missouri, Iowa, Kansas, Minnesota area.

This job involves selling of fertilizer raw materials to manufacturers. Our company is an established one with many years' experience and nation-wide coverage.

We prefer a man of some maturity, age range mid-thirties to early forties.

All inquiries handled in strict confidence. Send resume and indication of remuneration to: Ad No. 1457, Croplife, Box 67, Minneapolis 1, Minnesota.

FREIGHT RATES

(Continued from page 22)

and the mixed product, it is impossible to maintain the same retail price in the face of an increase in freight rates." He then presented graphs to indicate how the industry has absorbed previous freight increases, but the time has now come when any further freight costs will reduce net profit to the vanishing point. (One of his exhibits appears with this editorial.)

The industry will know shortly whether or not these pleas to the ICC will bear fruit, but whatever the results, it is gratifying to see the type of "spunk" being demonstrated by spokesmen for the fertilizer trade. Higher freight rates would most certainly add to the pressure being put on agriculture from all sides. We think that an objective look at the situation would make any viewer decide that so far as the fertilizer trade is concerned, a hike in transportation costs is totally inconsistent right now.

We take the view voiced by Mr. Smith in closing his arguments before ICC: "It is imperative, therefore, that the Commission suspend the tariff in this proceeding to permit a careful investigation of the effect that any increase in the freight

CROPLIFE, February 20, 1956—23

rates on fertilizer and fertilizer materials will have on the total revenues which the railroads will realize from these commodities as well as the effect of an increase on the fertilizer industry and the agricultural economy."

Nitrogen in Different Forms Tested on Cotton

YSLETA, TEXAS—A two-year field test in using five kinds of nitrogen fertilizer proved that all gave good results when used on cotton. The tests were conducted in two different areas by the Ysleta Experiment Station.

Combined yields of seed cotton for each fertilizer were as follows: with ammonium nitrate, 2,998 lb.; ammonium sulphate, 2,962; urea, 2,922; ammo-phos (16-20-0), 2,862, and anhydrous ammonia, 2,852 lb.

The same acreage of unfertilized cotton made an average yield of 2,433 lb. The addition of superphosphate to the nitrogen plots gave little increase in yield, the tests indicated.

In comparing the tests, agronomist Don Longnecker said that one source of nitrogen is about as good as the other. The important thing for farmers to remember is that any kind of good nitrogen fertilizer will increase cotton yields by 20% in the valley, if it is applied every year.

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Kolker Chemical Corp.	

A Complete Sales Medium..

CROPLIFE is the only *complete sales medium* directed to the agricultural chemical industry. It is a *weekly* newspaper appealing to all segments of the industry. One of its editorial functions is to knit more closely together all those industry elements—manufacturers, agents, retailers, the educational echelon and farm advisor groups. It does this by:

- Keeping all segments informed of all industry news.
- Providing feature material designed to help manufacturers and mixers to do a better job, to help dealers sell and to help farm advisors and educational people make sound recommendations.
- Keeping all industry alert to current and proposed government action.
- Providing a channel through which news and advertising can reach all segments of the industry.

This new approach to business journalism for the agricultural chemical industry is being made by a company with 80 years of experience in newsgathering and publishing and one which has built an unchallenged reputation for reliability and service. Advertising of your products and services in Croplife will mean *richer sales fields* for you!

National Coverage Weekly . . .

Croplife's carefully controlled circulation provides national weekly coverage of manufacturers, formulators, mixers and ingredient suppliers.

Plus Regional Coverage by Crop-areas . . .

In addition, a unique regional circulation plan provides advertisers with a selective crop-area coverage of wholesale and retail dealers and farm advisory personnel.



In addition to its national coverage, Croplife offers a selective regional circulation plan in these crop-areas

WRITE—WIRE—PHONE our nearest office for a complete analysis of Croplife's important role in your advertising program.

Croplife

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